Connecting via Winsock to STN

```
Welcome to STN International! Enter x:x
LOGINID: ssspta1653sxs
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2
                      Welcome to STN International
                  Web Page URLs for STN Seminar Schedule - N. America
 NEWS
          Apr 08
 NEWS
          Apr 09
 NEWS
          Apr 09
 NEWS
                  ZDB will be removed from STN
          Apr 19
 NEWS
          Apr 22
 NEWS
          Apr 22
 NEWS
       7
          Apr 22
 NEWS
```

"Ask CAS" for self-help around the clock BEILSTEIN: Reload and Implementation of a New Subject Area US Patent Applications available in IFICDB, IFIPAT, and IFIUDB Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS BIOSIS Gene Names now available in TOXCENTER Federal Research in Progress (FEDRIP) now available Jun 03 New e-mail delivery for search results now available NEWS NEWS 10 Jun 10 MEDLINE Reload NEWS 11 Jun 10 PCTFULL has been reloaded NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment NEWS 13 Jul 22 USAN to be reloaded July 28, 2002; saved answer sets no longer valid Enhanced polymer searching in REGISTRY NEWS 14 Jul 29 Jul 30 NEWS 15 NETFIRST to be removed from STN NEWS 16 Aug 08 CANCERLIT reload PHARMAMarketLetter(PHARMAML) - new on STN NEWS 17 Aug 08 NEWS 18 Aug 08 NTIS has been reloaded and enhanced NEWS 19 Aquatic Toxicity Information Retrieval (AQUIRE) Aug 19 now available on STN NEWS 20 IFIPAT, IFICDB, and IFIUDB have been reloaded Aug 19 NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced NEWS 23 Sep 03 JAPIO has been reloaded and enhanced NEWS 24 Sep 16 Experimental properties added to the REGISTRY file NEWS 25 Indexing added to some pre-1967 records in CA/CAPLUS Sep 16 NEWS 26 CA Section Thesaurus available in CAPLUS and CA Sep 16 NEWS 27 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985 February 1 CURRENT WINDOWS VERSION IS V6.0d, NEWS EXPRESS CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002 STN Operating Hours Plus Help Desk Availability NEWS HOURS NEWS INTER General Internet Information

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FILE 'HOME' ENTERED AT 14:58:07 ON 09 OCT 2002

=> s kvhgslaragkvrgqtpkvakqekkkkktgrakrrmqynrrfvnvvptfgkkkgpnans/sqep THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> s kvhgslaragkvrgqtpkvakqekkkkktgrakrrmqynrrfvnvvptfgkkkgpnans/sqep THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FIL REGISTRY COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.63 0.63

FULL ESTIMATED COST

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TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

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- => s kvhgslaragkvrgqtpkvakqekkkktgrakrrmqynrrfvnvvptfgkkkgpnans/sqep 1 KVHGSLARAGKVRGQTPKVAKQEKKKKKTGRAKRRMQYNRRFVNVVPTFGKKKGPNANS/SQEP 9718 SQL=59
- 1 KVHGSLARAGKVRGQTPKVAKQEKKKKKTGRAKRRMQYNRRFVNVVPTFGKKKGPNANS/SQEP (KVHGSLARAGKVRGQTPKVAKQEKKKKKTGRAKRRMQYNRRFVNVVPTFGKKKGPNANS/SQEP AND SQL=59)

=> d 11

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS

150550-01-9 REGISTRY RN Ribosomal protein S30 (rat clone pRS30-12) (9CI) (CA INDEX NAME) CN OTHER NAMES: Protein S30 (rat ribosome clone pRS30-12) CN Ubiquicidine CN FS PROTEIN SEQUENCE C290 H500 N102 O75 S MF CTMAN SR CA STN Files: CA, CAPLUS LC

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

\*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*

4 REFERENCES IN FILE CA (1962 TO DATE)

4 REFERENCES IN FILE CAPLUS (1962 TO DATE)

#### => FIL REGISTRY

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
8.26
8.89

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Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> SET TERMSET E#

SET COMMAND COMPLETED

=> DEL SEL Y

=> SEL L1 1 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L2 1 150550-01-9/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL CAPLUS

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 0.46 9.35

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FILE COVERS 1907 - 9 Oct 2002 VOL 137 ISS 15 FILE LAST UPDATED: 8 Oct 2002 (20021008/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> S L2

L3 4 L2

=> DIS L3 1 IBIB ABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.29 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L3 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1998:795125 CAPLUS

DOCUMENT NUMBER: 130:35577

TITLE: Antimicrobial peptides derived from ubiquicidine
INVENTOR(S): Nibbering, Petrus Hendricus; Hiemstra, Pieter Sicco;
Van Den Barselaar, Maria Theodora; Pauwels, Ernest

Karel Jacob; Feitsma, Rolf Ide Johannes

PATENT ASSIGNEE(S): Rijksuniversiteit Leiden, Neth.

SOURCE: PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Dutch FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

```
A1 19981203
                                         WO 1998-NL311
     WO 9854314
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,
             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
             UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, ML, MR, NE, SN, TD, TG
                                         NL 1997-1006164 19970529
     NL 1006164
                       C2
                            19981201
     AU 9877913
                                          AU 1998-77913
                            19981230
                                                           19980529
                      Α1
                                          EP 1998-925978
     EP 1003854
                            20000531
                                                           19980529
                     Α1
         R: AT, BE, CH, DE, FR, GB, IT, LI, NL
PRIORITY APPLN. INFO.:
                                        NL 1997-1006164
                                                           19970529
                                        WO 1998-NL311
                                                            19980529
AΒ
     The invention relates to the use of ubiquicidine or optionally modified
     peptide fragments derived therefrom for the prepn. of a drug for the
     treatment, diagnostics or prophylaxis of infections in humans and animals.
     A peptide fragment derived from ubiquicidine comprises for instance a
     preferably continuous series of at least 3, preferably at least 7-13 amino
     acids from the amino acid sequence of ubiquicidine:
     KVHGSLARAGKVRGQTPKVAKQEKKKKKTGRAKRRMQYNRRFVNVVPTFGKKKGPNANS. Ubiquicidine
     was isolated by gel filtration and reverse phase HPLC from the cytosol
     fraction of murine RAW 264.7 macrophages activated with interferon
     .gamma.. Ubiquicidine(1-18), ubiquicidine(18-35), and ubiquicidine(29-41)
     are particularly recommended, with activities about 1 .mu.M.
     Ubiquicidine(18-36) with N-terminal and C-terminal D-Ala residues is much
     more potent in eliminating Klebsiella pneumoniae in vitro than the
     unprotected peptide. Hybrid mols. comprise for instance a cationic
     peptide with an antimicrobial action and/or a peptide fragment of
     ubiquicidine and/or a deriv. thereof and one or more effector mols.
                               THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                         6
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
```

\_\_\_\_\_

\_\_\_\_\_

# => DIS L311 2 IBIB ABS L311 NOT FOUND

The L-number entered has not been defined in this session, or it has been deleted. To see the L-numbers currently defined in this session, enter DISPLAY HISTORY at an arrow prompt (=>).

# => DIS L311 3 IBIB ABS

L311 NOT FOUND

The L-number entered has not been defined in this session, or it has been deleted. To see the L-numbers currently defined in this session, enter DISPLAY HISTORY at an arrow prompt (=>).

# => D 13 2-4 pn py so ti au ab

- L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2002 ACS
- PY 1997
- SO European Journal of Biochemistry (1997), 246(3), 786-793 CODEN: EJBCAI; ISSN: 0014-2956
- TI Post-translational processing of rat ribosomal proteins. Ubiquitous methylation of Lys22 within the zinc-finger motif of RL40 (carboxy-terminal extension protein 52) and tissue-specific methylation of Lys4 in RL29
- AU Williamson, Nicholas A.; Raliegh, Jeanette; Morrice, Nicholas A.; Wettenhall, Richard E. H.
- AB The complete amino acid sequences of rat and yeast (Saccharomyces

cerevisiae) ribosomal proteins derived from precursors contg. an N-terminal ubiquitin or ubiquitin-like sequence (C-terminal extension proteins or CEPs) were detd. and investigated for any post-translational modifications by reverse-phase HPLC purifn., direct amino acid sequence and mass spectrometric analyses. Covalent modifications were detected in the rat liver proteins RS27a (CEP-80), RL29, RL37 and RL40 (CEP-52), while RS30 (CEP), RL36a, RL39 and RL41 were unmodified. Heterogeneity of RS27a was due to C-terminal truncations, with Lys80 missing from about 20% of the liver RS27a population; C-terminal processing was also detected with RL29 and RL37. No other covalent modifications of liver, brain or thymus RS27a were detected. The rat RL40 structure was identical to the cDNA-predicted sequence except for complete stoichiometric N.epsilon.-trimethylation of Lys22 within its zinc-finger motif; this modification occurred in the ribosomes of all three rat tissues investigated but not in yeast ribosomes. The methylation characteristics of RL40 were distinct from those of ribosomal protein RL29 in the rat, which was differentially monomethylated at Lys4 in the liver, brain and thymus (27%, > 99% and 95% methylation, resp.). In the case of liver, there was no appreciable difference in the RL29 methylation status of free and membrane-bound ribosomes. The possibilities of an essential role for RL40 methylation in the formation of rat ribosomes, and a distinct regulatory role for RL29 methylation in the rat, are discussed.

- L3 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2002 ACS PATENT NO. KIND DATE
- PI JP 05339287 A2 19931221
- PY 1993
- SO Jpn. Kokai Tokkyo Koho, 4 pp.
- CODEN: JKXXAF
- TI New protein having heparin binding activity of rat brain
- IN Kimura, Michio; Ito, Motofumi
- AB A heparin-binding protein (HBP-p7) (I) consisting of 59 amino acid residues was isolated from rat (Rattus norvegicus) brain by purifn. using a heparin-Sepharose column and HPLC. The purified protein I in vitro promoted the growth of fibroblast cells. It is useful as cell growth-promoting agent and for the treatment of wounds and bone diseases.
- L3 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2002 ACS
- PY 1993
- SO Journal of Biological Chemistry (1993), 268(24), 17967-74 CODEN: JBCHA3; ISSN: 0021-9258
- TI The carboxyl extension of a ubiquitin-like protein is rat ribosomal protein S30
- AU Olvera, Joe; Wool, Ira G.
- The amino acid sequence of the rat 40 S ribosomal subunit protein S30 was AB deduced from the sequence of nucleotides in a recombinant cDNA and confirmed by the detn. of the 18 residues at the NH2 terminus of the protein. Unlike the majority of ribosomal proteins, which are unprocessed primary products of the translation of their mRNAs, S30 is formed by cleavage from a larger hybrid protein. The NH2-terminal polypeptide has 38% identity with ubiquitin and contains the characteristic carboxyl-terminal Gly-Gly dipeptide of this family of proteins. S30 has 59 amino acids and the mol. wt. is 6,643; the ubiquitin-like sequence has 74 residues and the mol. wt. is 7,634. The hybrid protein is encoded in each of the 8-10 members of the family of rat S30 genes; there is, however, only a single species of mRNA which contains the sequences for both proteins. The coding sequence of the hybrid protein occurs in the reverse polarity in the genome of the Finkel-Biskis-Reilly murine sarcoma virus.

---Logging off of STN---

=>

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	15.49	24.84
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-2.48	-2.48

STN INTERNATIONAL LOGOFF AT 15:10:07 ON 09 OCT 2002

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1653sxs

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

```
Web Page URLs for STN Seminar Schedule - N. America
NEWS
                 "Ask CAS" for self-help around the clock
NEWS
         Apr 08
         Apr 09
                 BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS
      3
         Apr 09
NEWS
                 ZDB will be removed from STN
         Apr 19
NEWS
      5
                 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
         Apr 22
                 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS
      6
         Apr 22
                 BIOSIS Gene Names now available in TOXCENTER
NEWS
      7
         Apr 22
                 Federal Research in Progress (FEDRIP) now available
NEWS
      8
         Jun 03
NEWS
      9
                 New e-mail delivery for search results now available
NEWS 10
         Jun 10
                 MEDLINE Reload
         Jun 10
NEWS 11
                 PCTFULL has been reloaded
NEWS 12
         Jul 02
                 FOREGE no longer contains STANDARDS file segment
NEWS 13
         Jul 22
                 USAN to be reloaded July 28, 2002;
                 saved answer sets no longer valid
NEWS 14
         Jul 29
                 Enhanced polymer searching in REGISTRY
         Jul 30
NEWS 15
                 NETFIRST to be removed from STN
NEWS 16
         Aug 08
                 CANCERLIT reload
NEWS 17
         Aug 08
                 PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18
         Aug 08
                 NTIS has been reloaded and enhanced
NEWS 19
                 Aquatic Toxicity Information Retrieval (AQUIRE)
         Aug 19
                 now available on STN
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Aug 19
                 IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 20
NEWS 21
         Aug 19
                 The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22
         Aug 26
                 Sequence searching in REGISTRY enhanced
NEWS 23
         Sep 03
                 JAPIO has been reloaded and enhanced
NEWS 24
                Experimental properties added to the REGISTRY file
         Sep 16
NEWS 25
         Sep 16
                CA Section Thesaurus available in CAPLUS and CA
         Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
NEWS 26
NEWS 27
         Oct 21 EVENTLINE has been reloaded
NEWS 28
        Oct 24 BEILSTEIN adds new search fields
NEWS 29
         Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 30 Oct 25 MEDLINE SDI run of October 8, 2002
NEWS 31 Nov 18 DKILIT has been renamed APOLLIT
NEWS 32 Nov 25 More calculated properties added to REGISTRY
NEWS 33
        Dec 02
                TIBKAT will be removed from STN
NEWS 34
        Dec 04
                CSA files on STN
        Dec 17
NEWS 35
                 PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 36 Dec 17
                 TOXCENTER enhanced with additional content
NEWS 37
         Dec 17
                 Adis Clinical Trials Insight now available on STN
NEWS 38
         Dec 30
                 ISMEC no longer available
NEWS 39 Jan 13 Indexing added to some pre-1967 records in CA/CAPLUS
NEWS EXPRESS
             January 6 CURRENT WINDOWS VERSION IS V6.01a,
              CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
              AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
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              Direct Dial and Telecommunication Network Access to STN
NEWS WWW
              CAS World Wide Web Site (general information)
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FILE 'HOME' ENTERED AT 10:05:16 ON 16 JAN 2003

=> FIL REGISTRY
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

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STRUCTURE FILE UPDATES: 14 JAN 2003 HIGHEST RN 479024-64-1 DICTIONARY FILE UPDATES: 14 JAN 2003 HIGHEST RN 479024-64-1

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=> s MQYNRR/spsp and SQL<59

'/SPSP' NOT VALID IN A SEQUENCE QUERY

The field code specified is not valid in a sequence query. For more information, enter "HELP SSQ" at an arrow prompt (=>).

=> s MQYNRR/sqsp and SQL<59

7 MQYNRR/SQSP

2528091 SQL<59

L1 7 MQYNRR/SQSP AND SQL<59

=> s tgrakrr/sqsp and SQL<59

9 TGRAKRR/SQSP

2528091 SQL<59

L2 9 TGRAKRR/SQSP AND SQL<59

=> s kvakqekkkktgrakrr/sqep and SQL<25

1 KVAKQEKKKKKTGRAKRR/SQEP

72972 SOL=18

1 KVAKQEKKKKKTGRAKRR/SQEP

(KVAKQEKKKKKTGRAKRR/SQEP AND SQL=18)

1725063 SOL<25

L3 1 KVAKQEKKKKKTGRAKRR/SQEP AND SQL<25

=> S KVHGSLARAGKVRGQTPKVAKQ/SQEP

1 KVHGSLARAGKVRGQTPKVAKQ/SQEP

50702 SQL=22

L4 1 KVHGSLARAGKVRGQTPKVAKQ/SQEP

(KVHGSLARAGKVRGQTPKVAKQ/SQEP AND SQL=22)

=> S AGKVRGQTPKVAKQEKKKKKT/SQEP

1 AGKVRGQTPKVAKQEKKKKKT/SQEP

82819 SQL=21

L5 1 AGKVRGQTPKVAKQEKKKKKT/SQEP

(AGKVRGQTPKVAKQEKKKKKT/SQEP AND SQL=21)

=> FIL BIOSIS MEDLINE CAPLUS EMBASE SCISEARCH PCTFULL USPATFULL USPAT2 COST IN U.S. DOLLARS SINCE FILE TOTAL

ENTRY SESSION

90.77

FULL ESTIMATED COST 90.56

FILE 'BIOSIS' ENTERED AT 10:14:43 ON 16 JAN 2003 COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC. (R)

FILE 'MEDLINE' ENTERED AT 10:14:43 ON 16 JAN 2003

FILE 'CAPLUS' ENTERED AT 10:14:43 ON 16 JAN 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

```
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FILE 'SCISEARCH' ENTERED AT 10:14:43 ON 16 JAN 2003
COPYRIGHT (C) 2003 Institute for Scientific Information (ISI) (R)
FILE 'PCTFULL' ENTERED AT 10:14:43 ON 16 JAN 2003
COPYRIGHT (C) 2003 Univentio
FILE 'USPATFULL' ENTERED AT 10:14:43 ON 16 JAN 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)
FILE 'USPAT2' ENTERED AT 10:14:43 ON 16 JAN 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)
=> S L1 OR L2
'59' NOT A VALID FIELD CODE
'59' NOT A VALID FIELD CODE
'SQSP' IS NOT A VALID FIELD CODE
'59' NOT A VALID FIELD CODE
'59' NOT A VALID FIELD CODE
'SQSP' IS NOT A VALID FIELD CODE
             7 L1 OR L2
1.6
=> S L3
'25' NOT A VALID FIELD CODE
'SQEP' IS NOT A VALID FIELD CODE
'25' NOT A VALID FIELD CODE
'SQEP' IS NOT A VALID FIELD CODE
             3 L3
L7
=> S L4 OR L5
   3 FILES SEARCHED...
'SQEP' IS NOT A VALID FIELD CODE
'SQEP' IS NOT A VALID FIELD CODE
             2 L4 OR L5
L8
=> D HIST
     (FILE 'HOME' ENTERED AT 10:05:16 ON 16 JAN 2003)
     FILE 'REGISTRY' ENTERED AT 10:05:30 ON 16 JAN 2003
L1
              7 S MQYNRR/SQSP AND SQL<59
L2
              9 S TGRAKRR/SQSP AND SQL<59
L3
              1 S KVAKQEKKKKKTGRAKRR/SQEP AND SQL<25
L4
              1 S KVHGSLARAGKVRGQTPKVAKQ/SQEP
L5
              1 S AGKVRGQTPKVAKQEKKKKKT/SQEP
     FILE 'BIOSIS, MEDLINE, CAPLUS, EMBASE, SCISEARCH, PCTFULL, USPATFULL,
     USPAT2' ENTERED AT 10:14:43 ON 16 JAN 2003
              7 S L1 OR L2
L6
              3 S L3
L7
\Gamma8
              2 S L4 OR L5
=> DUP REM L6
PROCESSING COMPLETED FOR L6
1.9
              7 DUP REM L6 (0 DUPLICATES REMOVED)
=> d L7 PY PN AU TI SO AB 1-6
```

L7 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS

PY 2001 AU Welling, Mick M.; Lupetti, Antonella; Balter, Henia S.; Lanzzeri, Stella; Souro, Beatriz; Rey, Ana M.; Savio, Eduardo O.; Paulusma-Annema, Akke; Pauwels, Ernest K. J.; Nibbering, Peter H.

TI 99mTc-labeled antimicrobial peptides for detection of bacterial and Candida albicans infections

SO Journal of Nuclear Medicine (2001), 42(5), 788-794 CODEN: JNMEAQ; ISSN: 0161-5505

This study compared the possibilities and limitarions of 99mTc-labeled AΒ synthetic peptides derived from two human antimicrobial peptides, namely, ubiquicidin (UBI) and lactoferrin (hLF), for the scintigraphic detection of bacterial and fungal infections in mice and rabbits. The rationale of our approach was that selected peptides accumulate in infected areas but not in sterile inflammatory lesions, because they bind preferentially to microorganisms. 99mTc-labeled human neutrophil peptides (defensins), ciprofloxacin, and human polyclonal IgG were included as control agents. Methods: 99mTc-labeled peptides and control agents were injected i.v. into animals that had been injected i.m. 18 h earlier with multidrug-resistant Staphylococcus aureus, Klebsiella pneumoniae, or fluconazole-resistant Candida albicans. Sterile inflammatory sites were induced by the injection of heat-killed microorganisms or lipo-polysaccharide (LPS) into the thigh muscle. Up to 4 h after injection, the accumulation of 99mTc-labeled compds. in the infected/inflamed thigh muscles was detd. using scintigraphic techniques and radioactivity counts in dissected tissues. Results: Scintigraphy revealed that 99mTc-labeled peptides UBI 29-41, UBI 18-35, UBI 31-38, MLF 1-11, and defensins, which showed preferential in vitro binding to microorganisms in a former study, accumulated at a significantly higher rate (P < 0.01) in bacterial and C. albicans infections in mige and rabbits than in inflamed tissues induced by heat-killed microorgan/sms or by LPS. No significant difference in the accumulation of 99mTc-labeled ciprofloxacin was obsd. between infected and sterile inflamed thigh muscles in mice. Conclusion: 99mTc-labeled antimicrobial peptides UBI 29-41, UBI 18-35, UBI 31-38, hLF 1-11, and defensins accumulate significantly in tissues infected with gram-pos. and gram-neg. bacteria and C. albicans. Significantly lower (P < 0.01) accumulation of these peptides occurs in sterile inflamed tissues. These data indicate that the peptides preferentially tag microorganisms at the site of infection, which is in agreement with their preferential binding to the microorganisms in vitro and in vivo. 99mTc-labeled ciprofloxacin does not distinguish between infections and sterile inflammatory lesions, which implies that its specificity for the detection of bacterial infections is not warranted.

L7 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS

AU Welling, Mick M.; Paulusma-Annema, Akke; Balter, Henia S.; Pauwels, Ernest K. J.; Nibbering, Peter H.

TI Technetium-99m labelled antimicrobial peptides discriminate between bacterial infections and sterile inflammations

bacterial infections and sterile inflammations

SO European Journal of Nuclear Medicine (2000), 27(3), 292-301

CODEN: EJNMD9; ISSN: 0340-6997

AB The aim of this study was to select technetium-99m labeled peptides that can discriminate between bacterial infections and sterile inflammations. For this purpose, we first assessed the binding of various 99mTc-labeled natural or synthetic peptides, which are based on the sequence of the human antimicrobial peptide ubiquicidin (UBI) or human lactoferrin (hLF), to bacteria and to leukocytes in vitro. In order to select peptides that preferentially bind to bacteria over host cells, radiolabeled peptides were injected into mice i.p. infected with Klebsiella pneumoniae (K.

pneumoniae) and the amt. of radioactivity assocd. with the bacteria and with the leukocytes was quantitated. The next phase focussed on discrimination between bacterial infections and sterile inflammatory processes using 99mTc-labeled peptides in mice i.m. infected with various bacteria (e.g. multi-drug-resistant Staphylococcus aureus) and in animals that had been injected with lipopolysaccharides (LPS) of bacterial origin to create a sterile inflammatory process. Also, we studied the distribution of 99mTc-labeled UBI 29-41 and UBI 18-35/in rabbits having an exptl. thigh muscle infection with K. pneumoniae and in rabbits injected with LPS. Based on the results of our in vitro and in vivo binding assays, two peptides, i.e. UBI 29-41 and UBI 18-35, were selected as possible candidates for infection imaging. The radiolabeled peptides can detect infections with both gram-pos. and gram-neg. bacteria in mice as early as 5-30 min after injection, with a target-to-non-target (T/NT) ratio between 2 and 3; max. T/NT ratios were seen within 1 h after injection. In rabbits, high T/NT ratios (>5) for 99mTc-labeled UBI 29-41 were obsd. from 1 h after injection. No accumulation of the selected 99mTc-labeled UBI-derived peptides was obsd. in thighs of mice and rabbits previously injected with LPS. Scintigraphic investigation into the biodistribution of 99mTc-labeled UBI peptides revealed that these peptides were rapidly removed from the circulation by renal excretion. data were obsd. for 99mTc-labeled defensin 1-3. Our data for 99mTc-labeled hLF and related peptides indicate that these compds. are less favorable for infection detection. Taken together, 99mTc-labeled UBI 18-35 and UBI 29-41 enable discrimination between bacterial infections and sterile inflammatory processes in both mice and rabbits. Based on their characteristics, we consider these peptides the candidates of preference for detection of bacterial infections in man.

L7 PY	ANSWER 3 OF 3 1998 1998 1998 2000	CAPLUS	COPYRIGHT .	2003 ACS
	PATENT NO.	KIND	DATE	
PI	WO 9854314 NL 1006164 AU 9877913 EP 1003854	A1 C2 A1	19981203 19981201 19981230 20000531	

N Nibbering, Petrus Hondricus; Hiemstra, Pieter Sicco; Van Den Barselaar, Maria Theodora; Pauwels, Ernest Karel Jacob; Feitsma, Rolf Ade Johannes

TI Antimicrobial peptides derived from ubiquicidine

SO PCT Int. Appl., 48 pp. CODEN: PIXXD2

The invention relates to the use of ubiquicidine or optionally modified peptide fragments derived therefrom for the prepn. of a drug for the treatment, diagnostics or prophylaxis of infections in humans and animals. A peptide fragment derived from ubiquicidine comprises for instance a preferably continuous series of at least 3, preferably at least 7-13 amino acids from the amino acid sequence of ubiquicidine:

KVHGSLARAGKVRGQTPKVAKQEKKKKKTGRAKRRMQYNRRFVNVVPTFGKKKGPNANS. Ubiquicidine was isolated by gel filtration and reverse phase HPLC from the cytosol fraction of murine RAW 264.7 macrophages activated with interferon .gamma.. Ubiquicidine(1-18), ubiquicidine(18-35), and ubiquicidine(29-41) are particularly recommended, with activities about 1 .mu.M. Ubiquicidine(18-36) with N-terminal and C-terminal D-Ala residues is much more potent in eliminating Klebsiella pneumoniae in vitro than the unprotected peptide. Hybrid mols. comprise for instance a cationic peptide with an antimicrobial action and/or a peptide fragment of ubiquicidine and/or a deriv. Thereof and one or more effector mols.

#### => d L6 PY PN AU TI SO AB 1-7

ANSWER 1 OF 7 CAPLUS COPYRIGHT 2003 ACS L6 PY 2001 2001 2002 KIND

PΙ WO 2001064835 A2 20010907 AU 2001038347 20010912 Α5 US 2002121096 Α1 20020905

- Tang, Y. Tom; Liu, Chenghua; Drmanac, Radoje T. IN
- TI Nucleic acids and their encoded polypeptides from human tissues

SO PCT Int. Appl., 1400 pp. CODEN: PIXXD2

- AB The present invention provides a collection or library of 13,901 nucleic acid contig sequences assembled from expressed sequence tag or cDNA libraries isolated mainly by sequencing by hybridization (SBH), std. PCR, Sanger sequencing techniques, and in some cases, sequences obtained from one or more public databases. The cDNA libraries are from human tissue sources and nearest neighbor sequence homologies are provided. invention also relates to the proteins encoded by such polynucleotides, along with therapeutic, diagnostic and research utilities for these polynucleotides and proteins. [This abstr. record is the fourth of four records for this document necessitated by the large no. of index entries required to fully index the document and publication system constraints.].
- L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2003 ACS

PY *2*001 2001 2002 2002

	PA	PENT NO.	KIND	DATE
PΙ	WO	2001088088	A2	20011122
	WO	2001088088	A2	20011122
	WO	2001088088	A3	20021031
	US	2002121096	A1	20020905

- IN Tang, Y. Tom; Liu, Chenghua; Drmanac, Radoje T.
- ΤI Nucleic acids and their encoded polypeptides from human tissues
- PCT Int. Appl., 831 pp. SO

CODEN: PIXXD2

AB The present invention provides a collection or library of 8051 nucleic acid contig sequences assembled from expressed sequence tag or cDNA libraries isolated mainly by sequencing by hybridization (SBH), std. PCR, Sanger sequencing techniques, and in some cases, sequences obtained form one or more public databases. The cDNA libraries are from human tissue sources and nearest neighbor sequence homologies are provided. The invention also relates to the proteins encoded by such polynucleotides, along with therapeutic, diagnostic and research utilities for these polynucleotides and proteins. [This abstr. record is one of four records for this document necessitated by the large no. of index entries required to fully index the document and publication system constraints.].

ANSWER 3 OF 7 CAPLUS COPYRIGHT 2003 ACS L6 PΥ **2**001

Welling, Mick M.; Lupetti, Antonella; Palter, Henia S.; Lanzzeri, Stella; ΑU Souto, Beatriz; Rey, Ana M.; Savio, Eduardo O.; Paulusma-Annema, Akke; Pauwels, Ernest K. J.; Nibbering, Peter H.

- TI 99mTc-labeled antimicrobial peptides for detection of bacterial and Candida albicans infections
- SO Journal of Nuclear Medicine (2001), 42(5), 788-794 CODEN: JNMEAQ; ISSN: 0161-5505
- This study compared the possibilities and limitations of 99mTc-labeled AB synthetic peptides derived from two human antimicrobial peptides, namely, ubiquicidin (UBI) and lactoferrin (hLF), for the scintigraphic detection of bacterial and fungal infections in mice and rabbits. The rationale of our approach was that selected peptides accumulate in/infected areas but not in sterile inflammatory lesions, because they bind preferentially to microorganisms. 99mTc-labeled human neutrophil peptides (defensins), ciprofloxacin, and human polyclonal IgG were included as control agents. Methods: 99mTc-labeled peptides and control agent's were injected i.v. into animals that had been injected i.m. 18 h earlier with multidrug-resistant Staphylococcus aureus, Klebsiella pneumoniae, or fluconazole-resistant Candida albicans. Sterile inflammatory sites /were induced by the injection of heat-killed microorganisms or lipo-polysaccharide (LPS) into the thigh muscle. Up to 4 h after injection, the accumulation of 99mTc-labeled compds. in the infected/inflamed thigh muscles was detd. using scintigraphic techniques and radioactivity counts in dissected tissues. Results: Scintigraphy revealed that 99mTc-labeled peptides UBI 29-41, UBI 18-35, UBI 31-38, hLF 1-11, and defensins, which showed preferential in vitro binding to microorganisms in a former study, accumulated at a significantly higher rate (P < 0.01) in bacterial and C. albicans infections in mice and rabbits than in inflamed tissues induced by heat-killed microorganisms or by/LPS. No significant difference in the accumulation of 99mTc-labeled ciprofloxacin was obsd. between infected and sterile inflamed thigh muscles in mice. Conclusion: 99mTc-labeled antimicrobial peptides UBI 29-41 UBI 18-35, UBI 31-38, hLF 1-11, and defensins accumulate significantly in tissues infected with gram-pos. and gram-neg. bacteria and C. albiqans. Significantly lower (P < 0.01) accumulation of these peptides occurs in sterile inflamed tissues. These data indicate that the peptides preferentially tag microorganisms at the site of infection, which is in agreement with their preferential binding to the microorganisms in vitro and in vivo. 99mTc-labeled ciprofloxacin does not distinguish between infections and sterile inflammatory lesions, which implies that its specificity for the detection of bacterial infections is not warranted.

L6 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2003 ACS

PY / 2000

- AU (Welling, Mick M.; Paulusma-Annema, Akke; Balter, Henia S.; Pauwels, Ernest J.; Nibbering, Peter H.
- TI Technetium-99m labelled antimicrobial peptides discriminate between bacterial infections and sterile inflammations
- SO European Journal of Nuclear Medicine (2000), 27(3), 292-301 CODEN: EJNMD9; ISSN: 0340-6997
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to create a sterile inflammatory process. Also, we studied the distribution of 99mTc-labeled UBI 29-41 and UBI 18-35 in rabbits having an exptl. thigh muscle infection with K. pneumoniae and in rabbits injected with LPS. Based on the results of our in vitro and in vivo binding assays, two peptides, i.e. UBI 29-41 and UBI 18-35, were selected as possible candidates for infection imaging. The radiolabeled peptides can detect infections with both gram-pos. and gram-neg. bacteria in mice as early as 5-30 min after injection, with a target-to-non-target (T/NT) ratio between 2 and 3; max. T/NT ratios were seen within 1 h after injection. In rabbits, high T/NT ratios (>5) for 99mTc-labeled UBI 29-41 were obsd. from 1 h after injection. No accumulation of the selected 99mTc-labeled UBI-derived peptides was obsd. in thighs of mice and rabbits previously injected with LPS. Scintigraphic investigation into the biodistribution of 99mTc-labeled UBI peptides revealed that these peptides were rapidly removed from the circulation by renal excretion. Similar data were obsd. for 99mTc-labeled defensin 1-3. Our data for 99mTc-labeled hLF and related peptides indicate that these compds. are less favorable for infection/detection. Taken together, 99mTc-labeled UBI 18-35 and UBI 29-41 enable discrimination between bacterial infections and sterile inflammatory processes in both mice and rabbits. Based on their characteristics, we consider these peptides the candidates of preference for detection of bacterial infections in man.

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L6 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2003 ACS
PY 1998
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PATENT NO. KIND DATE
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PI WO 9854314 A1 19981203 NL 1006164 C2 19981201 AU 9877913 A1 19981230 EP 1003854 A1 20000531

EP 1003854 Al 20000531
IN Wibbering, Petrus Hendricus; Hiemstra, Pieter Sicco; Wan Den Barselaar, Maria Theodora; Pauwels, Ernest Karel Jacob; Feitsma, Rolf Ide Johannes

TI Antimicrobial peptides derived from ubiquicidine

SO PCT Int. Appl., 48 pp.

CODEN: PIXXD2

The invention relates to the use of ubiquicidine/or optionally modified AB peptide fragments derived therefrom for the prepn. of a drug for the treatment, diagnostics or prophylaxis of infections in humans and animals. A peptide fragment derived from ubiquicidine comprises for instance a preferably continuous series of at least 3, preferably at least 7-13 amino acids from the amino acid sequence of ubiquicidine: KVHGSLARAGKVRGQTPKVAKQEKKKKKTGRAKRRMQYNRRFYNVVPTFGKKKGPNANS. Ubiquicidine was isolated by gel filtration and reverse phase HPLC from the cytosol fraction of murine RAW 264.7 macrophages/activated with interferon .gamma.. Ubiquicidine(1-18), ubiquicidine(18-35), and ubiquicidine(29-41) are particularly recommended, with activities about 1 .mu.M. Ubiquicidine(18-36) with N-terminal and C-terminal D-Ala residues is much more potent in eliminating Klebsiella/pneumoniae in vitro than the unprotected peptide. Hybrid mols. comprise for instance a cationic peptide with an antimicrobial action and or a peptide fragment of ubiquicidine and/or a deriv. thereof and one or more effector mols.

L6 ANSINER 6 OF 7 CAPLUS COPYRIGHT 2003 ACS

AU van de Wal, Y.; Kooy, Yvonne M. C.; Drijfhout, Jan Wouter; Amons, Reinout; Papadopoulos, George K.; Koning, Frits

TI Unique peptide binding characteristics of the disease-associated

DQ(.alpha.1\*0501, .beta.1\*0201) vs. the non-disease-associated DQ(.alpha.1\*0201, .beta.1\*0202) molecule

SO Immunogenetics (1997), 46(6), 484-492

CODEN: IMNGBK; ISSN: 0093-7711

To understand the dominant assocn. of celiac disease (CD) with the AB presence of HLA-DQ(.alpha.1\*0501, .beta.1\*0201), the peptide binding characteristics of this mol. were compared with that of the structurally similar, but non-CD-assocd. DQ(.alpha.1\*0201, .beta.1\*0202) mol. First, naturally processed peptides were acid-extd. from immuno-affinity-purified DQ mols. of both types. Both mols. contained the Ii-derived CLIP sequence and a particular fragment of the major histocompatibility complex (MHC) class I .alpha. chain. Use of truncated analogs of these two peptides in cell-free peptide binding assays indicated that identical peptide frames are used for binding to the two DQ2 mols. Detailed substitution anal. of the MHC class I peptide revealed identical side chain requirements for the anchor residues at p6 and p7. At p1, p4, and p9, however, polar substitutions (such as N, Q, G, S, and T) were less well tolerated in the case of the DQ(.alpha.1\*0201, .beta.1\*0202) mol. The most striking difference between the two DQ mols. is the presence of an addnl. anchor residue at p3 for the DQ(.alpha.1\*0201, .beta.1\*0202) mol., whereas this residue was found not to be specifically involved in binding of peptides to DQ(.alpha.1\*0501, .beta.1\*0201). Similar results were obtained applying substitution anal. of the CLIP sequence. Mol. modeling of the DQ2 proteins complexed with the MHC class I and CLIP peptide corresponds well with the binding data. The results suggest that both CLIP and the MHC class I peptide bind DQ(.alpha.1\*0501, .beta.1\*0201) and DQ(.alpha.1\*0201, .beta.1\*0202) in a DR-like fashion, following highly similar binding criteria. This detailed characterization of unique peptide binding properties of the CD-assocd. DQ(.alpha.1\*0501, .beta.1\*0201) mol. should be helpful in the identification of CD-inducing epitopes.

L6 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2003 ACS

PY 1996

PATENT NO. KIND DATE

- PI JP 08176193 A2 19960709
- IN Mikoshiba, Katsuhiko
- TI Synaptic long-term potentiation-inducing peptide
- SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

AB The invention involves a peptide having the ability to potentiate long-term synaptic transmission efficiency and the use of said peptide. A specific amino acid sequence is presented for a peptide which is able to induce synaptic long-term potentiation. The peptide is of value for study of brain functions and for diagnosis and treatment of diseases of memory impairment assocd. with senile dementia.

=> d L8 PY PN AU TI SO AB 1-7

L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS

PY 1996

AU Ridgway, William M.; Fasso, Marcella; Lanctot, Andrea; Garvey, Chris; Fathman, C. Garrison

TI Breaking self-tolerance in nonobese diabetic mice

SO Journal of Experimental Medicine (1996), 183(4), 1657-62 CODEN: JEMEAV; ISSN: 0022-1007

AB Unresponsiveness to self is maintained through 2 mechanisms of immune regulation: thymic neg. selection and peripheral tolerance. Although thymic-neg. selection is a major mechanism to eliminate self-reactive T

X

cells, normal mice have readily detectable populations of T cells reactive to self-proteins but do not exhibit autoimmune responses. It has been postulated that autoimmune disease results from breakdown or loss of peripheral tolerance. The authors present data that demonstrate that peripheral tolerance or unresponsiveness to self can be broken in nonobese diabetic (NOD) mice. Immunization of NOD mice (but not of conventional mice) with self-peptides caused an immune response to the self-peptide with resultant autoproliferation of peripheral lymphocytes. Autoproliferation of self-reactive T cells in NOD mice resulted from the recognition and proliferation of the activated T cells to endogenously processed and presented self-antigen. This loss of self-tolerance demonstrated in vitro may well be the basis of NOD autoimmune disease in vivo.

- L8 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS
- PY 1992
- AU Nelson, Christopher A.; Roof, Richard W.; McCourt, David W.; Unanue, Emil R.
- TI Identification of the naturally processed form of hen egg white lysozyme bound to the murine major histocompatibility complex class II molecule I-Ak
- SO Proceedings of the National Academy of Sciences of the United States of America (1992), 89(16), 7380-3
  CODEN: PNASA6; ISSN: 0027-8424
- AB A murine B-cell lymphoma bearing the Hass II major histocompatibility complex mol. I-Ak was cultured with the protein antigen hen egg white lysozyme (HEL). The I-Ak mols. were purified, and their assocd. peptides were extd. for characterization. Five HEL peptides were identified. Four contained the 10 amino acid residues HEL 52-61 (DYGILQINSR) but were heterogeneous in length and flanking residues. This core sequence is known to confer a high binding affinity for I-Ak. One addnl. peptide contained the amino acid residues HEL 48-60. These data demonstrate that the HEL epitope contg. residues 52-61 is the most abundant HEL epitope presented on the major histocompatibility complex of the antigen-presenting cells and consequently explains its immunodominance.

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                 Aquatic Toxicity Information Retrieval (AQUIRE)
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                 IFIPAT, IFICDB, and IFIUDB have been reloaded
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        Aug 19
                 The MEDLINE file segment of TOXCENTER has been reloaded
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         Aug 26
                 Sequence searching in REGISTRY enhanced
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                 JAPIO has been reloaded and enhanced
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                 Experimental properties added to the REGISTRY file
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         Oct 21
                 EVENTLINE has been reloaded
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        Oct 24
                 BEILSTEIN adds new search fields
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        Oct 24
                Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 30
        Oct 25
                MEDLINE SDI run of October 8, 2002
NEWS 31
        Nov 18
                 DKILIT has been renamed APOLLIT
NEWS 32
         Nov 25
                 More calculated properties added to REGISTRY
NEWS 33
        Dec 02
                 TIBKAT will be removed from STN
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         Dec 04
                 CSA files on STN
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=> s KVHGSLARAGKVRGQTPK/SQEP

1 KVHGSLARAGKVRGQTPK/SQEP

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1 KVHGSLARAGKVRGQTPK/SQEP

(KVHGSLARAGKVRGQTPK/SQEP AND SQL=18)

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FILE 'REGISTRY' ENTERED AT 16:23:02 ON 03 FEB 2003

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L3 1 S KVAKQEKKKKKT/SQEP
L4 0 S KVAKQEKKKKKTGRAKRR/SQEP
L5 1 S TGRAKRR/SQEP

L6 1 S FVNVVPTFGKKKGPNANS/SQEP

L7 1 S MQYNRR/SQEP

FILE 'REGISTRY' ENTERED AT 16:30:33 ON 03 FEB 2003

FILE 'BIOSIS, MEDLINE, CAPLUS, EMBASE, SCISEARCH, PCTFULL, USPATFULL, USPAT2, EUROPATFULL' ENTERED AT 16:30:41 ON 03 FEB 2003

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L8 2 L1 => D L2 YOU HAVE REQUESTED DATA FROM FILE 'REGISTRY' - CONTINUE? (Y) /N:N => S L2 'SQEP' IS NOT A VALID FIELD CODE 'SOEP' IS NOT A VALID FIELD CODE 'SOEP' IS NOT A VALID FIELD CODE L9 3 L2 => S L3 'SQEP' IS NOT A VALID FIELD CODE 'SQEP' IS NOT A VALID FIELD CODE 'SOEP' IS NOT A VALID FIELD CODE L10 2 L3 => S L5 'SQEP' IS NOT A VALID FIELD CODE 'SQEP' IS NOT A VALID FIELD CODE 'SQEP' IS NOT A VALID FIELD CODE L11 1 L5 => S L6 'SQEP' IS NOT A VALID FIELD CODE 'SQEP' IS NOT A VALID FIELD CODE 'SQEP' IS NOT A VALID FIELD CODE T.12 1 T.6 => S L7 'SQEP' IS NOT A VALID FIELD CODE 'SOEP' IS NOT A VALID FIELD CODE 'SOEP' IS NOT A VALID FIELD CODE 1 L7 L13 => S L8 OR L9 OR L10 OR L11 OR L12 OR L13 3 L8 OR L9 OR L10 OR L11 OR L12 OR L13 L14 => D L14 1-3 PY PN AU PN PI SO TI AB ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS T.14 PΥ 2001 AU Welling, Mick M.; Lupetti, Antonella; Balter, Henia S.; Lanzzeri, Stella; Souto, Beatriz; Rey, Ana M.; Savio, Eduardo O.; Paulusma-Annema, Akke; Pauwels, Ernest K. J.; Nibbering, Peter H. Journal of Nuclear Medicine (2001), 42(5), 788-794 SO CODEN: JNMEAQ; ISSN: 0161-5505 TI 99mTc-labeled antimicrobial peptides for detection of bacterial and Candida albicans infections AB This study compared the possibilities and limitations of 99mTc-labeled synthetic peptides derived from two human antimicrobial peptides, namely, ubiquicidin (UBI) and lactoferrin (hLF), for the scintigraphic detection of bacterial and fungal infections in mice and rabbits. The rationale of our approach was that selected peptides accumulate in infected areas but not in sterile inflammatory lesions, because they bind preferentially to

microorganisms. 99mTc-labeled human neutrophil peptides (defensins), ciprofloxacin, and human polyclonal IgG were included as control agents. Methods: 99mTc-labeled peptides and control agents were injected i.v. into animals that had been injected i.m. 18 h earlier with multidrug-resistant

Staphylococcus aureus, Klebsiella pneumoniae, or fluconazole-resistant Candida albicans. Sterile inflammatory sites were induced by the injection of heat-killed microorganisms or lipo-polysaccharide (LPS) into the thigh muscle. Up to 4 h after injection, the accumulation of 99mTc-labeled compds. in the infected/inflamed thigh muscles was detd. using scintigraphic techniques and radioactivity counts in dissected tissues. Results: Scintigraphy revealed that 99mTc-labeled peptides UBI 29-41, UBI 18-35, UBI 31-38, hLF 1-11, and defensins, which showed preferential in vitro binding to microorganisms in a former study, accumulated at a significantly higher rate (P < 0.01) in bacterial and C. albicans infections in mice and rabbits than in inflamed tissues induced by heat-killed microorganisms or by LPS. No significant difference in the accumulation of 99mTc-labeled ciprofloxacin was obsd. between infected and sterile inflamed thigh muscles in mice. Conclusion: 99mTc-labeled antimicrobial peptides UBI 29-41, UBI 18-35, UBI 31-38, hLF 1-11, and defensins accumulate significantly in tissues infected with gram-pos. and gram-neg. bacteria and C. albicans. Significantly lower (P < 0.01) accumulation of these peptides occurs in sterile inflamed tissues. These data indicate that the peptides preferentially tag microorganisms at the site of infection, which is in agreement with their preferential binding to the microorganisms in vitro and in vivo. 99mTc-labeled ciprofloxacin does not distinguish between infections and sterile inflammatory lesions, which implies that its specificity for the detection of bacterial infections is not warranted.

- L14 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS
- PY 2000
- AÜ Welling, Mick M.; Paulusma-Annema, Akke; Balter, Henia S.; Pauwels, Ernest K. J.; Nibbering, Peter H.
- SO European Journal of Nuclear Medicine (2000), 27(3), 292-301 CODEN: EJNMD9; ISSN: 0340-6997
- TI Technetium-99m labelled antimicrobial peptides discriminate between bacterial infections and sterile inflammations
- AΒ The aim of this study was to select technetium-99m labeled peptides that can discriminate between bacterial infections and sterile inflammations. For this purpose, we first assessed the binding of various 99mTc-labeled natural or synthetic peptides, which are based on the sequence of the human antimicrobial peptide ubiquicidin (UBI) or human lactoferrin (hLF), to bacteria and to leukocytes in vitro. In order to select peptides that preferentially bind to bacteria over host cells, radiolabeled peptides were injected into mice i.p. infected with Klebsiella pneumoniae (K. pneumoniae) and the amt. of radioactivity assocd. with the bacteria and with the leukocytes was quantitated. The next phase focussed on discrimination between bacterial infections and sterile inflammatory processes using 99mTc-labeled peptides in mice i.m. infected with various bacteria (e.g. multi-drug-resistant Staphylococcus aureus) and in animals that had been injected with lipopolysaccharides (LPS) of bacterial origin to create a sterile inflammatory process. Also, we studied the distribution of 99mTc-labeled UBI 29-41 and UBI 18-35 in rabbits having an exptl. thigh muscle infection with K. pneumoniae and in rabbits injected with LPS. Based on the results of our in vitro and in vivo binding assays, two peptides, i.e. UBI 29-41 and UBI 18-35, were selected as possible candidates for infection imaging. The radiolabeled peptides can detect infections with both gram-pos. and gram-neg. bacteria in mice as early as 5-30 min after injection, with a target-to-non-target (T/NT) ratio between 2 and 3; max. T/NT ratios were seen within 1 h after injection. In rabbits, high T/NT ratios (>5) for 99mTc-labeled UBI 29-41 were obsd. from 1 h after injection. No accumulation of the selected 99mTc-labeled UBI-derived peptides was obsd. in thighs of mice and rabbits previously injected with LPS. Scintigraphic investigation into the

biodistribution of 99mTc-labeled UBI peptides revealed that these peptides were rapidly removed from the circulation by renal excretion. Similar data were obsd. for 99mTc-labeled defensin 1-3. Our data for 99mTc-labeled hLF and related peptides indicate that these compds. are less favorable for infection detection. Taken together, 99mTc-labeled UBI 18-35 and UBI 29-41 enable discrimination between bacterial infections and sterile inflammatory processes in both mice and rabbits. Based on their characteristics, we consider these peptides the candidates of preference for detection of bacterial infections in man.

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ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS
L14
PY
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     PATENT NO.
                  KIND DATE
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PΙ
                      C2 19981201
     NL 1006164
                      A1
     AU 9877913
                          19981230
                  A1
     EP 1003854
                           20000531
     Nibbering, Petrus Hendricus; Hiemstra, Pieter Sicco; Van Den Barselaar,
IN
     Maria Theodora; Pauwels, Ernest Karel Jacob; Feitsma, Rolf Ide Johannes
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PI
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             CM, GA, GN, ML, MR, NE, SN, TD, TG
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                            20000531 EP 1998-925978
     EP 1003854
                                                             19980529
         R: AT, BE, CH, DE, FR, GB, IT, LI, NL
     PCT Int. Appl., 48 pp.
SO
     CODEN: PIXXD2
ΤI
     Antimicrobial peptides derived from ubiquicidine
AΒ
     The invention relates to the use of ubiquicidine or optionally modified
     peptide fragments derived therefrom for the prepn. of a drug for the
     treatment, diagnostics or prophylaxis of infections in humans and animals.
     A peptide fragment derived from ubiquicidine comprises for instance a
     preferably continuous series of at least 3, preferably at least 7-13 amino
     acids from the amino acid sequence of ubiquicidine:
     KVHGSLARAGKVRGQTPKVAKQEKKKKKTGRAKRRMQYNRRFVNVVPTFGKKKGPNANS. Ubiquicidine
     was isolated by gel filtration and reverse phase HPLC from the cytosol
     fraction of murine RAW 264.7 macrophages activated with interferon
     .gamma.. Ubiquicidine(1-18), ubiquicidine(18-35), and ubiquicidine(29-41) are particularly recommended, with activities about 1 \dots M.
     Ubiquicidine(18-36) with N-terminal and C-terminal D-Ala residues is much
     more potent in eliminating Klebsiella pneumoniae in vitro than the
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unprotected peptide. Hybrid mols. comprise for instance a cationic peptide with an antimicrobial action and/or a peptide fragment of ubiquicidine and/or a deriv. thereof and one or more effector mols.

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=> S KVH/SQEP

L15

1.17

L18

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(KVH/SQEP AND SQL=3)

=> S VHG/SQEP

0 VHG/SQEP 1183 SQL=3 0 VHG/SOEP

L16 0 VHG/SQEP (VHG/SQEP AND SQL=3)

=> S HGS/SQEP

0 HGS/SQEP 1183 SQL=3 0 HGS/SQEP

(HGS/SQEP AND SQL=3)

=> S LAR/SQEP

0 LAR/SQEP 1183 SQL=3 0 LAR/SQEP

(LAR/SQEP AND SQL=3)

=> S RAG/SOEP 0 RAG/SOEP 1183 SOL=3 L19 0 RAG/SOEP (RAG/SQEP AND SQL=3) => S KKK/SQEP 154 KKK/SOEP 1183 SOL=3 L20 154 KKK/SQEP (KKK/SQEP AND SQL=3) ⇒> S KKKKK/SOEP 87 KKKKK/SQEP 51277 SOL=5 87 KKKKK/SQEP L21 (KKKKK/SQEP AND SQL=5) => FIL BIOSIS MEDLINE CAPLUS EMBASE SCISEARCH PCTFULL USPATFULL USPAT2 EUROPATFULL COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 46.10 113.07 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL . ENTRY SESSION CA SUBSCRIBER PRICE 0.00 -1.95 FILE 'BIOSIS' ENTERED AT 16:36:59 ON 03 FEB 2003 COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC.(R) FILE 'MEDLINE' ENTERED AT 16:36:59 ON 03 FEB 2003 FILE 'CAPLUS' ENTERED AT 16:36:59 ON 03 FEB 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS) FILE 'EMBASE' ENTERED AT 16:36:59 ON 03 FEB 2003 COPYRIGHT (C) 2003 Elsevier Science B.V. All rights reserved. FILE 'SCISEARCH' ENTERED AT 16:36:59 ON 03 FEB 2003 COPYRIGHT (C) 2003 Institute for Scientific Information (ISI) (R) FILE 'PCTFULL' ENTERED AT 16:36:59 ON 03 FEB 2003 COPYRIGHT (C) 2003 Univentio FILE 'USPATFULL' ENTERED AT 16:36:59 ON 03 FEB 2003 CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS) FILE 'USPAT2' ENTERED AT 16:36:59 ON 03 FEB 2003 CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS) FILE 'EUROPATFULL' ENTERED AT 16:36:59 ON 03 FEB 2003 COPYRIGHT (c) 2003 WILA Verlag Muenchen (WILA) => S L21 'SQEP' IS NOT A VALID FIELD CODE 'SQEP' IS NOT A VALID FIELD CODE 'SQEP' IS NOT A VALID FIELD CODE

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L23 151 DUP REM L22 (22 DUPLICATES REMOVED)

=> S L23 AND PY<=1997

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L24 100 L23 AND PY<=1997

=> D 90-100 L24 AU TI SO PI PN PY AB

L24 ANSWER 90 OF 100 CAPLUS COPYRIGHT 2003 ACS

AU Yap, William

TI Binding of ions to oligopeptides

SO Biophysical Journal (1973), 13(11), 1160-5 CODEN: BIOJAU; ISSN: 0006-3495

PY 1973

AB The calcd. and exptl. values of the apparent pK for the .epsilon.-amino groups of oligopeptides were found to be a function of degree of polymn. That the .alpha.-amino groups of these oligomers also varied with the d.p. suggests that phys. factors other than nearest-neighbor interactions must be considered. Equations for the titrn. curves of peptides with H+ were derived. The apparent assocn. consts. were detd. as a function of the d.p. and of nearest-neighbor interactions.

- L24 ANSWER 91 OF 100 CAPLUS COPYRIGHT 2003 ACS
- IN Gall, David
- TI Peptides as vaccine adjuvants
- SO Brit., 7 pp. CODEN: BRXXAA

PATENT NO. KIND DATE APPLICATION NO. DATE

PI GB 1290141 19720920 GB 1968-26115 19680531 <-PATENT NO. KIND DATE

PATENT NO. KIND DATE

PI GB 1290141 19720920 <--

PY 1972

AB Peptides of mol. wt. 6000-50,000, in which at least 50% of the amino acid residues have free amino groups, e.g. polylysine, polyornithine, showed activity as vaccine adjuvants. The peptides were esp. active when tested with diphtheria and tetanus toxoids. Thus, a soln. prepd. by dissolving poly-L-lysine (0.5 mg/ml), mol. wt. .apprx.44,000, in a diln. of diphtheria toxoid (2.5 Lf units/ml) in a borate-succinate buffer pH 7, was injected s.c. into guinea pigs. After 28 days the dose was repeated. Ten days later the mean antitoxin titer of the guinea pigs was 11.5 units/ml compared with one of <0.001 units/ml obtained from the same class of diphtheria toxoid without adjuvant. The peptides were prepd. by random polymn. of I; R is an amino acid group whose basic groups are protected by benzyloxycarbonyl. This gave nonhomogenous peptides whose av. mol. wt. depended on the polymn. conditions. Thus, 20 g N-(benzyloxycarbonyl)-Llysine N-carboxyanhydride in dioxane with NH3 for 42 hr at 100.degree. followed by treatment in CF3CO2H with HBr gave, after dialysis, (8 g) poly-L-lysine-HBr av. mol. wt. 20,000. Peptides of precise mol. wt. were prepd. by solid phase synthesis using chloromethylated polystyrene-2% divinylbenzene resin. Thus, syntheses with PhCH2O2CNH(CH2)4CH(NHCO2CMe3)C O2H gave (Lys)n.HCl (n = 5, 10, 15, 30).

L24 ANSWER 92 OF 100 CAPLUS COPYRIGHT 2003 ACS

- AU Grahl-Nielsen, Otto; Tritsch, George L.
- TI Synthesis of oligomeric L-lysine peptides by the solid-phase method
- SO Biochemistry (1969), 8(1), 187-92 CODEN: BICHAW; ISSN: 0006-2960
- PY 1969
- The oligomeric peptides di- through deca-L-lysine were synthesized by the AB solid-phase method by the use of a newly developed app. The peptide chain was elongated stepwise by starting with L-lysine covalently bonded to an insol. copolymer of 98% styrene and 2% divinylbenzene. The .alpha.-amino group of lysine was protected with the tert-butoxycarbonyl group, and the .epsilon.-amino group was protected with the carbobenzoxy group. The tert-butoxycarbonyl group was selectively cleaved by N HCl in HOAc at room temp. for 30 min. After each coupling step, some peptide-resin was removed from the reaction vessel, dried, weighed, and deblocked with HBr gas in CF3CO2H. Five min. of this treatment was sufficient to remove more than 90% of the peptide from the resin. The desired peptides were contaminated with lower homologs but chromatog. on a CM-cellulose column eluted with an exponential gradient of NaCl resulted in excellent sepns. After lyophilizing and desalting on Sephadex G-15, the peptides were obtained in pure form.
- L24 ANSWER 93 OF 100 CAPLUS COPYRIGHT 2003 ACS
- AU Stulbarg, Michael; Schlossman, Stuart F.
- TI Specificity of antigen-induced thymidine-2-14C incorporation into lymph node cells from sensitized animals
- SO Journal of Immunology (1968), 101(4), 764-9 CODEN: JOIMA3; ISSN: 0022-1767
- PY 1968
- The immunochem. specificity of antigen-induced thymidine-14C incorporation AB (in vitro) into lymph node cells from guinea pigs sensitized to .alpha.-DNP(Lys)9 [the mono-N.alpha.-(2,4-dinitrophenyl) deriv. of nona-L-lysine] or .alpha.-DNP(Lys)11-15 [a mixt. of the mono-N.alpha.-(2,4-dinitrophenyl) derivs. of (Lys)11-15] was studied. The lymph node cells obtained from sensitized guinea pigs were stimulated in tissue cultures to incorporate thymidine-14C in the presence of .alpha.-DNP(Lys)8, .alpha.-DNP(Lys)9, .alpha.-DNP(Lys)10, and .alpha.-DNP(Lys)11-15. The max. stimulatory effect was obtained with .alpha.-DNP(Lys)11-15, and as the peptide chain length was reduced in size there was a corresponding redn. in the stimulatory capacity of these immunogenic peptides. .alpha.-DNP(Lys)7 occupied a transition point in that only occasional cell cultures were stimulated to incorporate thymidine. In contrast, nonimmunogenic members of the homologous series of peptides smaller than the heptamer were never stimulatory over a wide range of antigen concns. Similarly, no stimulation was obtained with .alpha.-DNP-L(Lys)4-D-Lys-L(Lys)4. The specificity of the receptor for antigen on the sensitized lymphoid cell contrasts with the previously observed capacity of anti-.alpha.-DNP(Lys)n antibody to react with DNP-contg. proteins and nonimmunogenic .alpha.-DNP-L-lysines, but parallels the specificity of the in vivo delayed or anamnestic response. These results support the speculations concerning the existence of a still undefined mol., different from antibody, which functions as the cellular receptor for antigen and regulates the proliferative and biosynthetic response of the cell.
- L24 ANSWER 94 OF 100 CAPLUS COPYRIGHT 2003 ACS
- AU Latt, Samuel A.; Sober, Herbert A.
- TI Protein-nucleic acid interactions. II. Oligopeptide-polyribonucleotide binding studies
- SO Biochemistry (1967), 6(10), 3293-3306 CODEN: BICHAW; ISSN: 0006-2960

PY 1967

AB cf. CA 66: 128e. Equil. dialysis measurements were made at pH 7 and 4.degree. over a range of NaCl concns. of the binding of individual oligomers of the (L-lysine)n-.epsilon.-N-(dinitrophenyl)-L-lysine series (n = 3, 4, 5, 6, 7, or 8) to synthetic polynucleotides, principally poly (I + C) and poly (A + U). Evidence is presented for a 1:1 lysine:P ratio in the sol. complexes formed. Binding was stronger to poly (I + C) than to poly (A + U). Both the total binding energy and the difference between the binding energies to poly (I + C) and poly (A + U) increased linearly with oligolysine chain length. The strong inhibition of the binding by NaCl is interpreted in terms of a competition between Na+ and the oligolysines for the polynucleotide phosphates. A general theory of reversible colinear oligomer-polymer interactions is presented and used to ext. parameters from the binding data.

L24 ANSWER 95 OF 100 CAPLUS COPYRIGHT 2003 ACS

AU Schlossman, Stuart F.; Ben-Efraim, Shlomo; Yaron, Arieh; Sober, Herbert A.

TI Immunochemical studies on the antigenic determinants required to elicit delayed and immediate hypersensitivity reactions

SO J. Exptl. Med. (1966), 123(6), 1083-95

PY 1966

- AB The injection of an antigen into an animal may induce the formation of 2 sep. immune responses: (1) the immediate response assocd. with circulating antibody, and (2) a delayed response probably representing a form of immunity unrelated to the conventional circulating antibody, the chem. determinants of which are not known. Guinea pigs were sensitized to 4 chem. defined oligo-L-lysine antigens of structure X+NHCH(CH2CH2CH2CH2NH2.HCl)CO +n Y, contg. the following X and Y groups, resp.: (O2N)2C6H3, BuNH (I); H, BuNH (II); (O2N)2C6H3, OH (III); H, OH (IV). These guinea pigs were then skin tested with individual members of these homologous series, with related peptides, and with hapten-substituted proteins. The immediate skin test (Arthus) could be elicited with hapten-substituted tetramers, pentamers, and hexamers, whereas both immediate and delayed skin responses could be provoked by the octomer or nonamers. The hapten is an integral part of the determinant for both immediate and delayed skin reactivity, since poly-L-lysine was unable to elicit either immediate or delayed reactions in sensitized animals. Arthus-type skin reactions occurred only when the sensitizing and test antigens shared a common haptenic determinant contq. both a large oligo-L-lysine carrier and the same haptonic determinant. Mediation of the delayed response evidently requires a larger determinant than is necessary to elicit the immediate response. The role of high-affinity antibody as the indicator of the delayed response seems to be related to the size of the antigenic determinants required to elicit this response. The ability to elicit the delayed response paralleled the immunogenic capacity of these peptides, whereas the immediate response could be elicited by nonimmunogenic peptides. The delayed response may require the continued biosynthesis of antibody, and may be analogous to a local in vivo secondary response. 15 references.
- L24 ANSWER 96 OF 100 CAPLUS COPYRIGHT 2003 ACS
- AU Katchalski, E.; Levin, Y.; Neumann, H.; Riesel, E.; Sharon, N.
- TI Studies on the enzymic hydrolysis of poly-.alpha.-amino acids
- SO Bull. Res. Council Israel (1961), Sect. A 10, 159-71
- PY 1961
- AB Pepsin and rennin digest poly-L-glutamic acid (I) in the pH range 2.05.0. Triglutamic acid (II) is the major product of exhaustive hydrolysis. Diglutamic acid (III) and glutamic acid are formed in trace amts. High oligopeptides (Glu4 to Glu9) are formed in the initial stages of enzymic hydrolysis. Synthetic glutamyl oligopeptides (Glu3 to Glu8) and their

N-benzyloxycarbonyl derivs. are also hydrolyzed by pepsin, mainly to II, at a rate increasing with chain length. I at pH 4-8 and poly-L-lysine (IV) at pH 7-12 are hydrolyzed by ficin. On exhaustive hydrolysis, I yields mainly III and II, with higher oligopeptides being formed at the earlier stages. Synthetic glutamyl oligopeptides are also hydrolyzed by ficin, as well as IV, which forms Lys3, Lys4, and Lys5.. IV gives similar products on hydrolysis with papain at pH 9.2. The results show that the 5 endopeptidases studied act both on the helical and the random coil forms of the poly-.alpha.-amino acids serving as substrates. An intermediate mechanism of hydrolysis was postulated.

- ANSWER 97 OF 100 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. 1.24
- ΑU DiPolo R.; Beauge L.
- Effect of some metal-ATP complexes on Na+-Ca2+ exchange in internally ΤI dialysed squid axons.
- Journal of Physiology, (1993) 462/- (71-86). SO ISSN: 0022-3751 CODEN: JPHYA7
- PY
- AB Na(o)+-dependent Ca2+ efflux (forward Na+-Ca2+ exchange), and in some cases the Na(i)+-dependent Ca2+ influx (reverse Na+-Ca2+ exchange) were measured in internally dialysed squid axons under membrane potential control. We tested the effect on the Na+-Ca2+ exchange of the MgATP analogue bidentate chromium adenosine-5'-triphosphate (CrATP), substrate of several kinases, and cobalt tetrammine ATP (Co(NH3)4ATP), a poor substrate of most kinases. CrATP completely blocked the MgATP and MgATP-.gamma.-S (ATP-.gamma.-S) stimulation of the Na(o)+-dependent Ca2+ efflux (forward exchange) and the Na(i)+-dependent Ca2+ influx (reverse exchange). The analogue only blocked the nucleotide-dependent fraction of the Na+-Ca2+ exchange without modifying any kinetic parameters of the exchange reactions. The effects of CrATP were fully reversible with a very slow time constant (t1/2 about 30 min). The MgATP stimulation of the Na+-Ca2+ exchange was completely saturated at 1 mM. Higher MgATP concentrations (up to 15 mM) had no additional effects. Pentalysine (internal or external), the protein kinase C inhibitor H-7 (1-(5-isoquinolinylsulphonyl)-2-methylpiperazine) and several calmodulin inhibitors did not inhibit Na+-Ca2+ exchange either in the absence or presence of MgATP. Our results do not agree with the idea of an aminophospholipid translocase being responsible for the ATP stimulation of the Na+-Ca2+ exchange in squid axons; they suggest that this is due to the action of a kinase system.
- L24 ANSWER 98 OF 100 USPATFULL
- IN de Weck, Alain L., Institut fur klinische Immunologie, Bern, Switzerland

Schneider, Conrad H., Bern, Switzerland

Rolli, Hans P., Bern, Switzerland

TI Lysine polymers which may be used as supports for the preparation of products of diagnosis and products obtained

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PIUS 4415492

19831115

AΒ The present invention relates to lysine polymers of one of the following formulae: ##STR1## in which n is a whole number from 8 to 20 and n' a whole number from 4 to 10, to their process of preparation and to their use for the preparation of products of conjugation with benzylpenicillin or any other antibiotic of the .beta.-lactam type, which serve as products of diagnosis for skin tests intended to reveal an allergy to penicillin or any other antibiotic of the .beta.-lactam type.

- ANSWER 99 OF 100 USPATFULL L24
- Denkewalter, Robert G., Westfield, NJ, United States IN

AB

Kolc, Jaroslav, Randolph Township, Morris County, NJ, United States Lukasavage, William J., Harrison, NJ, United States

TI Preparation of lysine based macromolecular highly branched homogeneous compound

PI US 4360646 19821123 <--PI US 4360646 19821123 <---

Formed from trifunctional units (M) having attached, to one of the two terminal carbon atoms of an alkylene hydrocarbon diradical, the functional group A', and having attached, to the other terminal carbon atom, a different functional group B' reactive A' to form a linkage AB; and having attached, to a third carbon of the skeleton of unit (M), the functional group A" (preferably the same as A') reactive with B' whereby a macromolecule is built up of successive layers of units (M). The process involves successive stages in the first of which, the functional groups A' are blocked and group B is blocked with a "source" unit (S); then groups A' are liberated to form Compound I. In the second stage, Compound II is formed from the starting material (such as lysine) by first blocking groups A', then converting group B' to a form reactive with A'. Then a series of growth steps links two molecules of compound II to each molecule of Compound I via reaction between activated B' groups of two Compound II molecules, and two liberated A' groups of Compound I; and the four blocked groups A' in the two newly added units are liberated to form Compound III. In stage C, the four A' groups of Compound III are reacted as before with Compound II, and the eight blocked A' groups of the resultant newly added units (M) are liberated to complete the third stage; and so on, Lysine is illustrative of suitable starting materials. The products can be used as surface modifying agents; as metal chelating agents; and as substrates for preparation of pharmaceutical dosages.

L24 ANSWER 100 OF 100 USPATFULL

IN Inouye, Ken, Kobe, Japan Shin, Masaru, Kobe, Japan

Watanabe, Kunio, Otsu, Japan

TI Novel polypeptides having ACTH-like action

PI US 4018754 19770419

PI US 4018754 19770419

AB A polypeptide of the formula:

X.sub.1 --Tyr--Ser--X.sub.2 --X.sub.3 --His--Phe--Arg--Trp--Gly--Lys--Pro--Val--Gly--(Lys).sub.n --Y

<--

<--

wherein X.sub.1 is .alpha.-aminoisobutyric acid, .beta.-alanine, L-serine, D-serine, glycine, D-alanine, .gamma.-aminobutyric acid or sarcosine residue; X.sub.2 is L-methionine, L-norleucine, L-isoleucine or L-norvaline residue; X.sub.3 is L-glutamic acid or L-glutamine residue; n is an integer of 5-10; and Y is --R.sub.1, ##STR1## wherein R.sub.1 is hydroxy or lower alkoxy having 1-5 carbon atoms; R.sub.2, R.sub.3, R.sub.4 and R.sub.5 are each hydrogen or lower alkyl having 1-5 carbon atoms; m is an integer of 1-10 and Y is a group bound to the carbonyl group of the C-terminal lysine residue; non-toxic acid addition salts thereof; and complexes thereof; being useful as a medicament owing to their strong adrenal-stimulating activity with protracted action and little side effects. They can be prepared by condensing the amino acids together one by one or by condensing the small peptide fragments together in a per se conventional manner.

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L12
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L14
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=> DUP REM L20
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ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
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                                                                SESSION
CA SUBSCRIBER PRICE
                                                       -4.56
                                                                  -6.51
FILE 'REGISTRY' ENTERED AT 16:52:35 ON 03 FEB 2003
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STRUCTURE FILE UPDATES:
                           2 FEB 2003 HIGHEST RN 484639-64-7
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DICTIONARY FILE UPDATES: 2 FEB 2003 HIGHEST RN 484639-64-7

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf PROCESSING COMPLETED FOR L20
L25 154 DUP REM L20 (0 DUPLICATES REMOVED)

=> S L25 AND PY<=1997 L26 154 S L25

'1997' NOT A VALID FIELD CODE

0 PY<=1997

L27 0 L26 AND PY<=1997

=> FIL BIOSIS MEDLINE CAPLUS EMBASE SCISEARCH PCTFULL USPATFULL USPAT2 EUROPATFULL

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FULL ESTIMATED COST 0.40 172.29

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CA SUBSCRIBER PRICE ENTRY SESSION 0.00 -6.51

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FILE 'USPATFULL' ENTERED AT 16:53:17 ON 03 FEB 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 16:53:17 ON 03 FEB 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'EUROPATFULL' ENTERED AT 16:53:17 ON 03 FEB 2003 COPYRIGHT (c) 2003 WILA Verlag Muenchen (WILA)

=> DUP REM L20
DUPLICATE IS NOT AVAILABLE IN 'REGISTRY'.
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COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 9.22 181.51 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE 0.00 -6.51

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STRUCTURE FILE UPDATES: 2 FEB 2003 HIGHEST RN 484639-64-7 DICTIONARY FILE UPDATES: 2 FEB 2003 HIGHEST RN 484639-64-7

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf PROCESSING COMPLETED FOR L20 L28 154 DUP REM L20 (0 DUPLICATES REMOVED)

=> FIL BIOSIS MEDLINE CAPLUS EMBASE SCISEARCH PCTFULL USPATFULL USPAT2 EUROPATFULL COST IN U.S. DOLLARS SINCE FILE TOTAL

FULL ESTIMATED COST ENTRY SESSION 0.40 181.91

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FILE 'PCTFULL' ENTERED AT 16:53:53 ON 03 FEB 2003 COPYRIGHT (C) 2003 Univentio

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CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)
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CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)
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COPYRIGHT (c) 2003 WILA Verlag Muenchen (WILA)
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154 DUP REM L20 (0 DUPLICATES REMOVED)

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FILE 'BIOSIS, MEDLINE, CAPLUS, EMBASE, SCISEARCH, PCTFULL, USPATFULL, USPAT2, EUROPATFULL' ENTERED AT 16:53:53 ON 03 FEB 2003

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L29
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L30 49 L29 AND PY<=1997

=> S L30 OR 24 <----->

SEARCH ENDED BY USER L31 4883399 L30 OR 24

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6 FILES SEARCHED...

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=> D 1-5 L33 AU TI SO PI PN PY AB

- L33 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2003 ACS
- AU Rao, Chang; Tam, James P.
- TI Synthesis of Peptide Dendrimer
- SO Journal of the American Chemical Society (1994), 116(15), 6975-6 CODEN: JACSAT; ISSN: 0002-7863
- PY 1994
- AB Peptide dendrimers with their characteristic branched structures represent an emerging class of artificial proteins which function as enzymes, ion channels, antibiotics, diagnostic reagents, and vaccines. A facile and specific method is described to ligate the 1,2-aminothiol moiety of an N-terminal cysteine of an unprotected 24-residue peptide to a glyoxylyl scaffolding to yield a highly compact octabranched thiazolidinyl dendrimer with a mol. wt. of 24,405. The glyoxylyl scaffolding was derived from the periodate oxidn. of an octameric serinyl multiple antigen peptide contg. three levels of sequentially branched lysines. The obtained peptide dendrimer is believed to be the largest artificial protein obtained by controlled synthesis.
- L33 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2003 ACS
- IN De Weck, Alain L.; Schneider, Conrad H.; Rolli, Hans P.
- TI Polymers of lysine and their conjugation with .beta.-lactam antibiotics for the preparation of diagnostic products
- SO Eur. Pat. Appl., 15 pp.

CODEN: EPXXDW

PATENT NO. KIND DATE APPLICATION NO. DATE

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PΥ
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     1984
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    1984
    1984
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AB Lysine polymers, HLysnOH or (CH2).alpha.(COLysn1OH)2, where n = 8-20 and n1 = 4-10, were prepd. and used for the prepn. of conjugation products with K benzylpenicillin [113-98-4] or other antibiotics of the .beta.-lactam type for use as reagents for diagnosis of allergy to these antibiotics. The lysine polymers can be rapidly eliminated in the urine and have no immunogenicity. The lysine polymers were prepd. by oligomerization of a lysine deriv. with a protected chain, e.g. (Boc)NH(CH2)4CH(NH2)CO2 tert-Bu or (Boc)NH(CH2)4CH(CO2H)NH(Nps), where Boc = tert-butyloxycarbonyl and Nps = p-nitrophenyl sulfenyl. The resulting oligomers, HLysnOH, may be condensed to longer chain oligomers by using N-ethyl-N'-(3-dimethylaminopropyl)carbodiimide-HCl as the condensation agent in the presence of 1-hydroxybenzotriazole and a hydrophobic solvent, e.g. CH2Cl2 or DMF-DMSO mixt. These lysine polymers might also be condensed to (CH2)2(COLysn1OH)2 by treating partially protected oligomers with bifunctional compds., e.g. succinic anhydride [108-30-5].

# L33 ANSWER 3 OF 5 USPATFULL

ΙN Rose, Keith, Geneva, Switzerland Offord, Robin E., Croix-de-Rozon, Switzerland TΙ Polyoxime compounds and their preparation PΙ US 6217873 В1 20010417 WO 9425071 19941110 <--PΙ US 6217873 20010417 В1 WO 9425071 19941110

Provided by this invention are essentially homogeneous, defined compositions of matter and hetero-polyoximes of defined structure comprising a baseplate structure having a plurality of oxime bonds, wherein each oxime bond links a specifically active molecule to the baseplate. Also provided are novel baseplates having a plurality of oxime forming complementary reactive groups and novel specifically reactive molecules having an oxime forming complementary reactive group. Also provided by this invention are methods of preparing these novel compositions of matter by chemoselectively ligating via oxime bond formation a complementary orthogonal reactive group on the baseplate to a complementary reactive orthogonal group on a specifically active molecule. Methods of using these defined compositions of matter as well as pharmaceutical compositions comprising these defined compositions of matter and methods of their use are also provided by this invention.

PΙ

L33 ANSWER 4 OF 5 USPATFULL

IN Tam, James P., Nashville, TN, United States

TI Litigation of sidechain unprotected peptides via a masked glycoaldehyde ester and O,N-acyl rearrangement

PI US 5589356 19961231 <--

US 5589356 19961231 <--

AB A method of chemical ligation of peptides that requires no side chain protecting groups and no activation of the C-.alpha. carboxyl group is presented. The method consists of three steps. In the first step, initiation, a masked glycoaldehyde ester is enzymatically or chemically coupled to the C-terminal carboxylic acid of an sidechain unprotected first peptide. In the second step, ring formation, the masked aldehyde ester of the first peptide is unmasked, and then reacted with the N-.alpha. amino acid of a second sidechain unprotected peptide to form a ring structure. In the third step, rearrangement, the O-acyl ester linkage transfers at higher pH to an N-acyl linkage on the ring to form a peptide bond.

#### L33 ANSWER 5 OF 5 USPATFULL

IN de Weck, Alain L., Institut fur klinische Immunologie, Bern, Switzerland 3010

Schneider, Conrad H., Bern, Switzerland

Rolli, Hans P., Bern, Switzerland

TI Lysine polymers which may be used as supports for the preparation of products of diagnosis and products obtained

PI US 4415492 19831115 <--

PI US 4415492 19831115 <--

The present invention relates to lysine polymers of one of the following formulae: ##STR1## in which n is a whole number from 8 to 20 and n' a whole number from 4 to 10, to their process of preparation and to their use for the preparation of products of conjugation with benzylpenicillin or any other antibiotic of the .beta.-lactam type, which serve as products of diagnosis for skin tests intended to reveal an allergy to penicillin or any other antibiotic of the .beta.-lactam type.

## => D 1-10 L30 AU TI SO PI PN PY AB

L30 ANSWER 1 OF 49 CAPLUS COPYRIGHT 2003 ACS

IN Tam, James P.

TI Method for synthesis of proteins

SO U.S., 77 pp., Cont.-in-part of U.S. Ser. No. 490,932, abandoned.

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 6310180 US 5589356 PATENT NO.	B1 A KIND	20011030 19961231 DATE	US 1995-492411 US 1993-81412	19950619 19930621	<
PI PY	US 6310180 US 5589356 2001	B1 A	20011030 19961231			<

1996

AB A method for peptide synthesis is disclosed that requires neither protecting groups nor activation of the C-.alpha. carboxyl groups. The method comprises ligating a first mol. to a second mol. by promoting the orthogonal coupling of the mols. to each other. In an aspect of this method, an acyl-type reaction occurs between the mols. The method contemplates the joining of mols. of variant size to each other, as well as the coupling of multiple identical mols. The invention also covers the

ligation of unprotected peptide, proteins or nonpeptide segments to prep. therapeutic products and synthetic vaccines with linear, circularized, or branched backbone structures, as well as the site-specific modification of peptides or proteins by lipidation and PEGylation. The synthesis of pentadecapeptide I (Q = Thr-Phe-Asp-Leu-Lys-NH2) is an example of the domain ligation method of the present invention in which the thiazole ring is formed by treating alanyl nonapeptide disulfide dimethoxyethyl ester with TFA and H-Cys-Q and adjusting to pH 5.

- L30 ANSWER 2 OF 49 CAPLUS COPYRIGHT 2003 ACS
- IN Dean, Richard T.; Lister-James, John
- TI Labeled somatostatin analogs for imaging cardiovascular disease
- SO U.S., 6 pp., Cont.-in-part of U.S. Ser. No. 253,973.

CODEN:	USXXAM

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 5976496	A	19991102	US 1997-976995	19971124
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	CN 1158090	Α	19970827	CN 1995-194356	19950601 <
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	PATENT NO.	KIND	DATE		
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	CN 1158090	A	19970827		<
	CN 1093424	В	20021030		
	ZA 9504548	Α	19960315		<
PY	1999				
	1995				
	1997				
	2002				
	1996				

AB The invention provides methods and kits for detecting cardiovascular disease in a living mammal, using a labeled form of a somatostatin analog. Suitable labels are 123I, 67Ga, 11IIn and 99mTc. The methods and kits of the invention provide early detection of atherosclerotic plaque, in particular, unstable atherosclerotic plaque, thus allowing therapeutic intervention prior to acute and potentially fatal incidents of cardiovascular disease. Thus, localization and in-vivo imaging of atherosclerotic plaques was carried out in hypercholesteremic rabbits using Tc-99m-labeled somatostatin analogs.

- L30 ANSWER 3 OF 49 CAPLUS COPYRIGHT 2003 ACS
- AU Page, Daniel; Roy, Rene
- TI Glycodendrimers as novel biochromatography adsorbents
- SO International Journal of Bio-Chromatography (1997), 3(3), 231-244
  - CODEN: IJOBEQ; ISSN: 1068-0659
- PY 1997
- AB Synthetic multivalent glycoconjugates ending with mannopyranoside residues were evaluated as ligands for the phytohemagglutinins from Con A (Con A) and Pisum sativum using enzyme-linked lectin assays (ELLA) and turbidimetric analyses. The relative affinity of the neoglycoconjugates, together with few ref. monosaccharides, were detd. by solid-phase inhibition assays using yeast mannan as coating antigen and peroxidase-labeled lectins. The ability of these ligands to selectively ppt. a mannose-binding protein (Con A) from a crude mixt. was also demonstrated using PAGE (SDS-PAGE). These multivalent glycoconjugates (glycondendrimers) were shown to constitute novel biochromatog. materials

- of high affinity for the isolation of carbohydrate-binding proteins.
- L30 ANSWER 4 OF 49 CAPLUS COPYRIGHT 2003 ACS
- AU Chillemi, Francesco; Francescato, Pierangelo; Bossa, Rosaria; Fraccari, Alessandra; Galatulas, Iraklis
- TI Enhancement of cytotoxic activity by synthesis of peptide multimeric forms
- SO Anticancer Research (1997), 17(5A), 3609-3611 CODEN: ANTRD4; ISSN: 0250-7005
- PY 1997
- AB Synthesis of four multimeric H-Lys-His-His-Arg-Lys-Lys-His-Arg-Lys-Arg-Lys-Arg-Lys-His-His-Lys-Arg-Lys-OH peptides contg. two, four, eight and sixteen branches was carried out by solid phase utilizing a lysine core matrix. These multimeric peptides enhanced activity by inhibiting the colony-forming ability of HeLa cells, from twenty-four to fifty-six times in comparison with the monomeric form. Unexpectedly the peptide with only two-branched sequences showed the highest inhibitory activity.
- L30 ANSWER 5 OF 49 CAPLUS COPYRIGHT 2003 ACS
- AU Roy, Rene; Park, William, K. C.; Zanini, Diana; Foxall, Carrol; Srivastava, Om P.
- TI Dendritic 3'-sulfo-Lewisx-(Glc) as potent L- and E-selectin antagonists
- SO Carbohydrate Letters (1997), 2(4), 259-266 CODEN: CLETEC; ISSN: 1073-5070
- PY 1997
- AB The prepn. and the relative selectin binding properties of a family fo 3'-sulfo-Lex-(Glc) dendrimers are reported. 8-Methoxycarbonyloctyl glycoside of the sialyl Lewisx mimetic, 3'-sulfo-Lewisx-(Glc), was transformed into a thiol-ending deriv. Inhibition of sialyl Lewisx glycolipid to L- and E- selectins using chimeric Ig fusion proteins was performed. Di-, tri-, tetra-, and octa-valent dendrimers exhibited IC50's of 300, 150, 70, and 20 .mu.M for E-selectin and 10, 5, 2, and 1 mM for L-selectin resp.
- L30 ANSWER 6 OF 49 CAPLUS COPYRIGHT 2003 ACS
- AU Jezek, Jan; Velek, Jiri; Trnka, Tomas; Pisacka, Martin
- TI Solid phase synthesis of Tn antigens in both free and immobilized form
- Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries: Peptides, Proteins and Nucleic Acids--Small Molecule Organic Chemical Diversity, Collected Papers, International Symposium, 4th, Edinburgh, Sept. 12-16, 1995 (1996), Meeting Date 1995, 427-428. Editor(s): Epton, Roger. Publisher: Mayflower Scientific, Birmingham, UK. CODEN: 640NA9
- PY 1996
- AB A symposium report. MAPAc-[(Tn)2-.gamma.-Abu]8-Lys4-Lys2-Lys-.beta.-Ala-NH2 and Ac-[(Tn)2-.gamma.-Abu]8-(Lys-.gamma.-Abu)4-(Lys-.gamma.-Abu)2-Lys-.beta.-Ala-NH2, both in free form and immobilized on solid supports, were prepd. by SPPS. These compds. were used in immunization expts. in animals and for quantification of anti-Tn antibodies in immunized animals and also in normal and pathol. situations in man. Furthermore, the utility of synthetic immobilized antigens for affinity purifn. of antibodies was tested.
- L30 ANSWER 7 OF 49 CAPLUS COPYRIGHT 2003 ACS
- AU Baleux, Francois; Dubois, Philippe; Jouine, Helene
- TI A new versatile carrier derived from MAP for immunological studies
- SO Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries: Peptides, Proteins and Nucleic Acids--Small Molecule Organic Chemical Diversity, Collected Papers, International Symposium, 4th, Edinburgh, Sept. 12-16, 1995 (1996), Meeting Date 1995, 313-316. Editor(s): Epton, Roger. Publisher: Mayflower Scientific, Birmingham, UK.

CODEN: 640NA9

PY 1996

- AB A novel version of Multiple Antigenic Peptide (MAP) is described. This approach consists of the synthesis of a properly functionalized antigen carrier and the incorporation, on request, of one or more activated antigenic peptides. This method was used to synthesize mono and di-epitopes MAP contg. a B cell epitope of PF72/HSP70-1 and the Th epitope CS-T3 of the circumsporozoite protein of Plasmodium falciparum. Mice of two different MHC haplotypes (H-2d, H-2k) were immunized with the various MAP constructs. Immunization results show a modification in the genetic restriction in the humoral response against the peptide of the PF72/HSP70-1 antigen.
- L30 ANSWER 8 OF 49 CAPLUS COPYRIGHT 2003 ACS
- AU Callebaut, Christian; Jacotot, Etienne; Krust, Bernard; Guichard, Gilles; Blanco, Julia; Valenzuela, Agustin; Svab, Josette; Muller, Sylviane; Briand, Jean-Paul; Hovanessian, Ara G.
- TI Pseudopeptide TASP inhibitors of HIV entry bind specifically to a 95-kDa cell surface protein
- SO Journal of Biological Chemistry (1997), 272(11), 7159-7166 CODEN: JBCHA3; ISSN: 0021-9258
- PY 1997
- AB The template assembled synthetic peptide constructs (TASP), pentavalently presenting the tripeptide KPR or RPK, are potent and specific inhibitors of human immunodeficiency virus (HIV) infection by preventing viral entry into permissive cells. Here the 5[K.PSI.(CH2N)PR]-TASP construct, .PSI.(CH2N) for reduced peptide bond, was used in studies to demonstrate its specific binding to a 05-kDa cell surface protein ligand. Compared to its nonreduced 5[KPR]-TASP counterpart, the pseudopeptide 5[K.PSI.(CH2N)PR]-TASP manifested higher affinity to bind to its cell surface ligand, increased activity to inhibit HIV infection, and resistance to degrdn. when incubated in serum from an HIV-1 seropos. individual. In ligand blotting expts., the biotin-labeled 5[K.PSI.(CH2N)PR]-TASP identified a single 95-kDa protein in crude cell exts. This 95-kDa protein (p95) is expressed on the cell surface since surface iodination of cells resulted in its labeling, and moreover, following incubation of cells with the biotin-labeled 5[K.PSI.(CH2N)PR]-TASP, the p95.cntdot.TASP complex was recovered by affinity chromatog. using avidin-agarose. All anti-HIV TASP constructs but not their control derivs. affected the binding of biotin-labeled 5[K.PSI.(CH2N)PR]-TASP to p95, thus emphasizing the specific nature of this binding. Since 5[K.PSI.(CH2N)PR]-TASP does not interact with HIV-envelope glycoproteins, our results suggest that TASP inhibitors mediate directly or indirectly a block in HIV-mediated membrane fusion process by binding to the cell surface expressed p95.
- L30 ANSWER 9 OF 49 CAPLUS COPYRIGHT 2003 ACS
- AU Zanini, Diana; Roy, Rene
- TI Chemoenzymic Synthesis and Lectin Binding Properties of Dendritic N-Acetyllactosamine
- SO Bioconjugate Chemistry (1997), 8(2), 187-192 CODEN: BCCHES; ISSN: 1043-1802
- PY 1997
- AB Proof that multivalency amplifies individual carbohydrate-protein interactions is growing. N-Acetylglucosamine (GlcNAc)-based dendrimers with valencies of two (9), four (10), and eight (11) were prepd. in fair to excellent yields (65-99%) on the basis of the rational scaffolding of L-lysine on solid phase using established Fmoc and HOBt chem. These GlcNAc dendrimers were then further transformed enzymically (79-90% yields) into dendritic N-acetyllactosamine (LacNAc) derivs. [di- (12),

tetra- (13), and octavalent (14)] using UDP-glucose, UDP-glucose 4'-epimerase, and GlcNAc .beta.-1,4-galactosyltransferase. GlcNAc and LacNAc dendrimers were used to inhibit lectin-porcine stomach mucin interactions. Wheat germ agglutinin and Erythrina cristagalli lectin were used for GlcNAc and LacNAc dendrimers, resp. Di-, tetra-, and octavalent GlcNAc dendrimers exhibited IC50s of 3100, 509, and 88 .mu.M, resp. (6200, 2040, and 703 .mu.M, resp., with respect to monomeric GlcNAc content). IC50s for the LacNAc series were 341, 143, and 86 .mu.M, resp. (682, 574, and 692 .mu.M, resp., as compared with monomeric LacNAc content). These data represent more than 20-fold increases in inhibitory potential for dendritic GlcNAc as compared to that for monomeric GlcNAc. Studies with E. cristagalli do not reveal significant increased inhibitory potential with multivalency.

L30 ANSWER 10 OF 49 CAPLUS COPYRIGHT 2003 ACS

TI Preparation of peptide dendrimers

SO Ger. Offen., 49 pp.

CODEN: GWXXBX PATENT NO. KIND DATE APPLICATION NO. DATE PΙ DE 19521945 Α1 19961219 DE 1995-19521945 19950612 <--WO 9641830 A1 19961227 WO 1996-EP2517 19960611 <--W: CA, JP, NO, US RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE EP 832150 Α1 19980401 EP 1996-921966 19960611 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI PATENT NO. KIND DATE \_\_\_\_ \_\_\_\_\_

PI DE 19521945 A1 19961219 <-WO 9641830 A1 19961227
EP 832150 A1 19980401

PY 1996 1996 1998

AB Iodoarene-contg. dendrimers A-{X-[Y-[Z-(W-Dw)z]y]x}a [A = nitrogen-contg. cascade nucleus, X, Y = bond or cascade unit, Z, W = cascade unit, D = T-B, where B = C6I3R1R2-2,4,6,3,5 (R1, R2 = H, carbamoyl, carboxamido), T = CO, CS, CONH, CSNH, etc., a = 2-12, x, y, z = 1-4, w = 1-8, such that 16 .ltoreq. a.x.y.z.w .ltoreq. 128] were prepd. for use as contrast media. Thus, a fully-protected benzyloxycarbonyl-32-polyamine was prepd. from N,N',N'',N'''-tetrakis{8-(benzyloxycarbonylamino)-6-[2-(benzyloxycarbonylamino)ethyl]-5-oxo-3-oxaoctanoyl}cyclen and N.alpha.,N.epsilon.-bis(lysyl)lysine. Deprotection with HBr/AcOH and reaction with N-(2,3-diacetoxypropyl)-5-[4-(isopropoxycarbonyl)-3-oxabutyrylamino]-2,4-6-triiodoisophthalic amide chloride and then diglycolic anhydride afforded a dendrimer, which was superior to lipromide as contrast agent in rat blood.

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<sup>=&</sup>gt; D 11-20 L30 AU TI SO PI PN PY AB

L30 ANSWER 11 OF 49 CAPLUS COPYRIGHT 2003 ACS

IN Coy, David H.; Woltering, Eugene A.; O'Dorisio, M. Sue; O'Dorisio, Thomas M.; Murphy, William A.

TI Multi-tyrosinated somatostatin analogs, preparation thereof, and diagnostic and therapeutic use

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PCT Int. Appl., 65 pp.
     CODEN: PIXXD2
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
                           _____
                                          ______
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             LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD,
             SE, SG
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN
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                           19961224
                                          AU 1996-60317
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     EP 833646
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                           19991201
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     1996
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AB
     Disclosed are methods and compns. for the diagnosis and treatment of
     diseases assocd. With aberrant expression of a somatostatin receptor
     (e.g., cancer) or with increased prodn. of a factor regulatable by
     somatostatin (e.g., acromegaly). The compds. of the invention are of the
     general formulas (Y)n+1P, (Y)n-Ala-Y-P, or (YqXq-1)(YsXs-1)XP [P =
     somatostatin peptide analog binding to somatostatin receptor; Y =
     D-tyrosine, L-tyrosine, desaminotyrosine; n, q, s = 1-32 (q and s can be
     same or different); X = D-NH2-CH(CH2)mNH2-CO2H, L-NH2-CH(CH2)mNH2-CO2H (m
     = 1-10)]. Prepn. and radioiodination of somatostatin analog peptides of
     the invention are described, as are receptor binding assays and use in in
     vivo diagnosis and therapy of a tumor patient.
L30
    ANSWER 12 OF 49 CAPLUS COPYRIGHT 2003 ACS
     Krause, Werner; Nitecki, Danute; Maier, Franz; Schumann-Giampieri,
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Gabriele; Press, Wolf-ruediger; Muschick, Peter; Biancalana, Sara

Preparation of iodine-containing dendritic peptides and their use as X-ray

contrast media

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PCT Int. Appl., 94 pp.
     CODEN: PIXXD2
                                             APPLICATION NO. DATE
     PATENT NO.
                      A2 19961219
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     WO 9640760
                                            WO 1996-EP2450 19960606 <--
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                      А3
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             IE, FI
     PATENT NO.
                       KIND DATE
     WO 9640760 A2 19961219
WO 9640760 A3 19970206
US 5756066 A 19980526
CA 2223924 AA 19961219
EP 835259 A1 19980415
PΤ
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PΥ
     1996
     1997
     1998
     1996
     Iodine-contg. dendritic peptides I [ R1 = OH, NR25R26; R2 = peptide
AB
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- AB Iodine-contg. dendritic peptides I [ R1 = OH, NR25R26; R2 = peptide dendrimer; R3 = H, OH, Ph, straight chain or branched, optionally substituted C1-6 alkyl; R4 = H, optionally substituted C1-4 alkyl, C1-8 acyl; R3CH(CH2)qNR4 = 5- or 6-membered ring; R25, R26 = independently C1-20 alkyl optionally interrupted by one or more nitrogen or oxygen atoms; m = 0-6; p = 0-200; q = 0-6; wherein at least 10 iodinated benzene radicals are present], agents contg. these compds., the use of compds. as contrast media as well as processes for their prodn. are described. Thus, coupling of dendritic lysine oligomer II (R = H), (prepn. given) with iodinated benzoyl chloride Q-Cl (prepn. given) gave 91% functionalized dendrimer II (R = Q) contg. 48 iodinated benzoyl radicals. Iodinated dendrimer II (R = Q) remains in the blood space much longer than std. contrast agent Ultravist. Despite the high mol. wt., dendrimer II (R = Q) shows complete elimination from the body, as only 0.36% remained in a test rat after 14 days.
- L30 ANSWER 13 OF 49 CAPLUS COPYRIGHT 2003 ACS
- AU Page, Daniel; Zanini, Diana; Roy, Rene
- TI Macromolecular recognition: effect of multivalency in the inhibition of binding of yeast mannan to concanavalin A and pea lectins by mannosylated dendrimers
- SO Bioorganic & Medicinal Chemistry (1996), 4(11), 1949-1961 CODEN: BMECEP; ISSN: 0968-0896
- PY 1996
- AB The synthesis and binding properties of a new family of high affinity .alpha.-D-mannopyranoside ligands are described. The synthesis of the new multivalent ligands is based on the scaffolding of multiantennary branches of L-lysine residues having electrophilic N-chloroacetylated end groups as core structures. An .alpha.-D-mannopyranoside with p-substituted aryl aglycon ending with a thiol group was prepd. and covalently attached to each of the branches of the dendritic structures. The resulting glycodendrimers with 2, 4, 8, and 16 mannoside residues were tested for their relative inhibitory potency by solid-phase enzyme-linked lectin assays (ELLA) using Me and p-nitrophenyl .alpha.-D-mannopyranosides as stds. Concns. necessary for 50% inhibition (IC50's) of binding of yeast

mannan to Jack bean phytohemagglutinin (Canavalia ensiformis, Con A) and to pea lectin (Pisum sativum) were detd. Analogous mannosylated copolyacrylamides were also prepd. for comparison. The IC50 values were also plotted as a function of dendrimer valences. The inhibitions showed that the 16-mer was approx. 600- and 2000-fold more potent than Me .alpha.-D-mannopyranoside, and 66- and 1383-fold more potent than p-nitrophenyl .alpha.-D-mannopyranosides with Con A and pea lectins, resp. Even when these nos. are expressed relative to single mannopyranoside residues per dendrimers, the relative potencies against the arom. mannoside are still 4- and 86-fold better against Con A and pea lectins. These results unequivocally indicate that the optimum inhibitory binding properties of the new mannosylated dendrimers vary with both dendrimer and lectin valences.

- L30 ANSWER 14 OF 49 CAPLUS COPYRIGHT 2003 ACS
- AU Rose, Keith; Zeng, Weiguang; Regamey, Pierre-Olivier; Chernushevich, Igor V.; Standing, Kenneth G.; Gaertner, Hubert F.
- TI Natural Peptides as Building Blocks for the Synthesis of Large Protein-like Molecules with Hydrazone and Oxime Linkages
- SO Bioconjugate Chemistry (1996), 7(5), 552-556 CODEN: BCCHES; ISSN: 1043-1802
- PY 1996
- AB Methods are known for the prodn. of synthetic protein-like mols. of nonlinear architecture with mol. masses in the 10-20 kDa range. To synthesize such compds. of higher mol. mass and complexity, chemoselective ligation of natural (as opposed to synthetic) peptide building blocks was studied. In preliminary expts. with model peptides, conditions for the formation of peptide oximes were investigated, and their stability at alk. pH was examd., to resolve a literature controversy. It was found that low pH (down to 2.1) was suitable for polyoxime formation and that the oxime bond was stable for up to 65 h at pH 8 and for more than 2 h at pH 9. Then, using natural peptides, it was found to be possible to synthesize, and characterize by mass spectrometry, nine-component species with mol. masses >48 kDa. This is about twice the size of homogeneous artificial proteins previously described. Such complex mols. of defined structure are beginning to find applications as vaccine candidates, as radioimmunodiagnostic agents, and as nonviral gene therapy delivery vehicles.
- L30 ANSWER 15 OF 49 CAPLUS COPYRIGHT 2003 ACS
- IN Dean, Richard T.; McBride, William; Lister-James, John
- TI Cyclic hexapeptide somatostatin analogs for radiodiagnosis and radiotherapy
- SO PCT Int. Appl., 29 pp.

		DEN: PIXX		KIND	DATE		APPLICATION NO.	DATE			
PI	WO				19960215 JP, KR,		WO 1995-US9276	19950720	<		
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	ΑU	9531984		A1	19960304		AU 1995-31984	19950720	<		
	ΑU	702917		B2	19990311						
	ΕP	775160		A1	19970528		EP 1995-928109	19950720	<		
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19960313
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AB The invention relates to therapeutic reagents and peptides, including radiotherapeutic reagents and peptides, and radiodiagnostic reagents and peptides. Specifically, the invention relates to cyclic peptide derivs. and analogs of somatostatin, and embodiments of such peptides radiolabeled with a radioisotope, as well as methods for using such peptides for radiodiagnostic and radiotherapeutic purposes. Receptor-binding data are included. Localization and in vivo imaging of somatostatin receptor-expressing tumors in rats are described (no data).

- L30 ANSWER 16 OF 49 CAPLUS COPYRIGHT 2003 ACS
- AU Qualmann, Britta; Kessels, Michael Manfred; Musiol, Hans-Juergen; Sierralta, Walter Daniel; Jungblut, Peter Wilhelm; Moroder, Luis-
- TI Synthesis of boron-rich lysine dendrimers as protein labels in electron microscopy
- SO Angewandte Chemie, International Edition in English (1996), 35(8), 909-911 CODEN: ACIEAY; ISSN: 0570-0833
- PY 1996
- AB Two lysine-rich peptides contg. (S)-5-(2-methyl-1,2-dicarba-closo-dodecaborane(12)-1-yl)-2-aminopentanoic acid were prepd. by solid-phase methodol. as agents suitable for boron neutron capture therapy of cancer.
- L30 ANSWER 17 OF 49 CAPLUS COPYRIGHT 2003 ACS
- AU Callebaut, Christian; Jacotot, Etienne; Guichard, Gilles; Krust, Bernard; Rey-Cuille, Marie-Anne; Cointe, Denis; Benkirane, Nadia; Blanco, Julia; Muller, Sylviane; et al.
- TI Inhibition of HIV infection by pseudopeptides blocking viral envelope glycoprotein-mediated membrane fusion and cell death
- SO Virology (1996), 218(1), 181-92 CODEN: VIRLAX; ISSN: 0042-6822
- PY 1996
- AB The RP dipeptide motif is highly conserved in the third hypervariable

SO

region (V3 loop) of the extracellular envelope glycoprotein of different types of HIV isolates. In view of this, we have designed and synthesized a construction refered to as "template assembled synthetic peptide" (TASP), in which a lysine-rich short polypeptide was used as a template to covalently anchor arrays of tripeptides, such as RPR, RPKL, or KPR. pentavalent presentation, 5(RPR)-, 5(RPK)-, or 5(KPR)-TASP, mols. manifested max. inhibitory-activity relationship studies using analogs of  $5(\mathrm{KPR})$ -TASP indicated that the pos. charged side chains of the K and R residues in the tripeptide mols. are crit. for the optimal inhibitory activity of the pentavalent construct. Interestingly, replacement of L-amino acid residues by D-amino acids or redn. of the peptide bond between the first two amino acids of the tripeptide generated peptide-TASP analogs active at sub-.mu.M concns. The anti-HIV action of the peptide-TASP constructs is specific, since they inhibit infection of several types of CD4-expressing cells by HIV-1 Lai and HIV-2 EHO but not by the simian SIV-mac isolate. Our results suggests that these inhibitors block three post-CD4-binding functions of the HIV envelope glycoproteins, mediation of viral entry, syncytium formation, and triggering cell death by apoptosis. As the peptide-TASP derivs. with unnatural amino acid sequences in the tripeptide moiety retain full inhibitory activity, they should provide potent protease-resistant peptide inhibitors as potential therapeutic agents for treatment of AIDS patients.

L30 ANSWER 18 OF 49 CAPLUS COPYRIGHT 2003 ACS

IN Mcbride, William; Dean, Richard T.

TI Monoamine, diamide, thiol-containing metal chelating agents

PCT Int. Appl., 64 pp.

	CODEN: PIXXD2 PATENT NO.	KIND	DATE	APPLICATION NO.	DATE			
PI		A1	19951214	WO 1995-US6914		<		
				GB, GR, IE, IT, LU,				
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	AU 707040	B2	19990701					
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				EP 1995-922159				
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	1999							
	1997							

## 09921880

AB The invention relates to reagents useful in prepg. radiolabeled diagnostic and therapeutic agents (radiopharmaceuticals). Specifically, the invention provides such reagents that are monoamine, diamide, and thiol-contg. metal chelators. Methods of making such reagents, and methods of using the radiopharmaceuticals produced therefrom are also provided.

L30 ANSWER 19 OF 49 CAPLUS COPYRIGHT 2003 ACS

IN Hovanessian, Ara; Callebaut, Christian; Krust, Bernard; Jacotot, Etienne; Muller, Sylviane; Briand, Jean-paul; Guichard, Gilles

TI Multirepresentation of a peptide analog of the DPPIV (dipeptidyl peptidase IV) substrate, especially of the KPR type, to inhibit the entry of HIV in cells

SO PCT Int. Appl., 46 pp.

CODEN: PIXXD2 PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_\_ 19951102 PΙ WO 9529190 A1 WO 1995-FR528 19950421 <--W: AU, CA, CN, JP, KR, NZ RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE FR 2719049 19951027 Α1 FR 1994-4895 19940422 <--FR 2719049 В1 19960614 CA 2188470 AΑ 19951102 CA 1995-2188470 19950421 <--AU 9524125 19950421 <--Α1 19951116 AU 1995-24125 EP 756603 EP 1995-918043 19950421 <--A1 19970205 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE JP 10502337 Т2 19980303 JP 1995-527406 19950421 PATENT NO. KIND DATE WO 9529190 PIA1 19951102 <--FR 2719049 19951027 A1 <--FR 2719049 19960614 В1 CA 2188470 AA<--19951102 <--AU 9524125 **A1** 19951116 <--

CA 2188470 AA 19951102 AU 9524125 A1 19951116 EP 756603 A1 19970205 JP 10502337 T2 19980303 PY 1995 1995

1995 1996 1995 1995

> 1997 1998

AB Mols. are disclosed which have a plurality of repeat patterns, esp. of the KPR type, which are recognizable by an ectoprotein (on the cell surface), in particular by the CD26 receptor (also known as the DPPIV enzyme). The peptide patterns are all carried by a peptide matrix enabling their multiple presentation to the enzyme and having an affinity for the latter. The mols. of the invention are the active ingredient of a compn. inhibiting the entry of HIV in cells, in particular for the treatment of a retrovirus-induced infection.

L30 ANSWER 20 OF 49 CAPLUS COPYRIGHT 2003 ACS

AU Zanini, Diana; Park, William K. C.; Roy, Rene

TI Synthesis of novel dendritic glycosides

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- SO Tetrahedron Letters (1995), 36(41), 7383-6 CODEN: TELEAY; ISSN: 0040-4039
- PY 1995
- AB Glycodendrimers were synthesized by coupling various thiolated glycosides, with and without a spacer moiety, to a pre-formed N-chloroacetylated L-lysine dendrimer on solid-phase. The dendritic L-lysine cores were divalent, tetravalent and octavalent, i.e., (XCH2CO-Gly-Gly)2-Lys-.beta.-Ala-OR, (XCH2CO-Gly-Gly)4-Lys2-Lys-.beta.-Ala-OR, and (XCH2CO-Gly-Gly)8-Lys4-Lys2-Lys-.beta.-Ala-OR (R = Wang resin). The dendrimers in double immunodiffusion assays using either wheat germ agglutinin lectin or peanut lectin exhibited pptn. bands. The bands for divalent dendrimers were transient and as valency increased, pptn. lines noticeably became stronger and less diffuse.